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FIRES IN PICTOU MINES

REPORT OF COMMISSION TO ENQUIRE INTO THE CAUSE,
HISTORY, AND EFFECTS OF FIRES IN
PICTOU COAL MINES.

HALIFAX, Dec. 31, 1895.

THE HONORABLE W. S. FIELDING,
Provincial Secretary:

SIR :

I beg leave in accordance with the instructions received from His Honor the Lieutenant-Governor, dated June 4th, 1895, appointing me a Commissioner to enquire into the cause, history and effects of the fires in the coal seams in Pictou County, and authorizing me to employ such mining experts or other persons as, in my judgment, might be necessary or useful in the prosecution of the enquiry, to submit the following report and evidence ;

And to remain

Your obedient servant,

EDWIN GILPIN, JR.,
Inspector of Mines.

REPORT.

HALIFAX, N. S., December 30th, 1895.

TO THE HON. W. S. FIELDING,
Provincial Secretary:

SIR :

The undersigned, appointed to enquire into the history, causes and effects of the fires in coal seams in Pictou County, begs leave respectfully to submit the following report :

Every possible effort was made to secure all available information about the old workings, their extent, residuum of coal, quality, connections, etc., and the opinions of several prominent men connected with the iron and other business of Pictou County was secured. Two of the Commission had the advantage of some personal knowledge of the district.

Evidence was also secured in England from the Engineer engaged for part of the time the Foord Pit workings were open.

The evidence taken before the Commission, and the necessary plans, are herewith respectfully submitted.

I was assisted in the enquiry by William Madden, Jr., Esq., Deputy Inspector of Mines; Henry Mitchell, Esq., M. E., of Old Bridgeport, and Alexander Dick, Esq., M. E., of Halifax. These gentlemen sat with me, and to their patient enquiry and investigation is due what merit the report may have.

The coal field of Pictou County has been fully described by Sir William Dawson and the Canadian Geological Survey, and in this connection attention will be directed only to those portions most directly of importance to this enquiry.

There are two sections of the coal field which received the attention of the Commission: the Albion and the Vale. Both of these are the property of the Acadia Coal Company, and are the only sections of the district which have suffered from fires, causing an abandonment of permanent operations, and are known as the Albion and Vale areas. Sketches are submitted showing these areas and the seams found in them so far as related to the enquiry.

Work was interrupted for some time in the Intercolonial Coal Co's. Colliery, Westville, owing to a severe explosion caused by the ignition of a feeder of gas. As the fire was promptly extinguished and work resumed it was not considered necessary to make any formal enquiry into that explosion.

In the Albion District the fires have been confined to the area known as the General Mining Association, and the scene of the earliest mining operations in the County on a systematic scale. The seams of the Albion area outcrop on its southern side, with dips to the north which would, if not interrupted, cause the whole

of it to be underlaid by coal. The following condensed section will serve to show the relative position of the seams, etc.:

	ft.	in.	ft.	in.
Strata			1126	0
Main Seam	34	7		
Strata			143	
Deep or Cage Pits Seams.....	22	11		
Strata			106	
Third Seam.....	5	7		
Strata			113	
Purvis Seam	2	6		
Strata			130	
Fleming Seam.....	3	3		
Strata			4	
McGregor Seam.....	11	7		
Strata			211	
Stellar Coal.....	5	0		

(Section from Geo. Survey Report.)

Other sections show the main seam 40 feet thick; the deep seam 24 feet 11 inches; the third seam 11 feet 9 inches; the McGregor 14 feet 10 inches thick.

The variations in the seams as followed, are still more marked. Thus, the main seam, as bored through near the eastern line of the area, yielded only 6 feet 9 inches of coal; and the next, or deep seam, was there represented by black shale. Similarly in their most westerly extension the main and deep seams diminish in value.

These seams, broadly speaking, are presented as a trough having its axis parallel to the longer side of the area. The officers of the Geological Survey compared the outcrops of some coal seams on the north line of the area with the seams referred to in the section. Evidence was given that this reappearance of the Albion seams on the north side of the area was not the case. There would, however, appear to be no doubt that the seams do extend over the greater part of the area. Numerous faults have been met in the workings, but the seams have been followed to the bottom of the basin; and the beginning of their upward rise on the reverse dip proved.

In the Vale area, of three square miles, two seams have been worked presenting the same general features, and the following section:

	feet	feet
Strata,		
Six feet seam,	3 to 6	
Strata,		700
McBean seam,	6 to 7.	

These seams dip to the north-west, and their reappearance between the Vale Colliery and New Glasgow, if it exists, is

unknown. The bottom of the basin was reached in the slope of the six feet seam at a distance of about 2500 feet. The workings in the underlying seam were abandoned when they were about 1000 feet from the bottom of the basin.

The earliest workings in the Albion seams were carried on by McKay, Carr and others. They consisted of levels and shallow pits in the outcrops of the coal. The amount of coal extracted was unimportant, some returns showing that from 1818 to 1827, about 27,170 tons were extracted.

During the summer of 1827, Mr. Smith commenced systematic operations on behalf of the General Mining Association, and the "Store" or "Burnt Mines" were sunk, the deepest being about 200 feet. The workings extended from the pit level to the crop, about 250 yards to the south-east, and about 900 yards northerly. There was a serious fire in these mines in 1832, and one in 1839, which led to their abandonment.

The workings were in the top coal only, and although presumably the workings are much crushed, it is stated that many pillars could be utilized. The bottom coal is believed to be intact, and a barrier of thirty yards was left, and a fresh series of pits sunk to the dip, known as the Bye pits, the deepest being 451 feet. The levels from the lowest (deepest) pit extended about 1000 yards southeasterly, and about 1200 yards westerly. Dip slants were driven northwesterly and northeasterly from these levels. These pits suffered from several explosions and fires.

A heavy fire in 1861, was followed by an attempt to reopen them in 1862, and another fire took place in 1863, and Feb. 14th, 1867, the workings were finally closed on account of fire. The top coal only was worked in these mines, and there is a large amount of untouched bottom coal.

In the year 1850 the Dalhousie and Cage pits were sunk, a short distance beyond the western faces of the Store and Bye pit workings, the former to the main and the latter to the deep seam. The levels were driven only a short distance in the main seam, east of the Dalhousie pits, and extended about 1000 yards westward. A slant was driven northwesterly to the dip from the pit bottom about 1200 yards. In the eastern workings the top 14 feet of coal was worked, the bottom coal being considered coarse. In the remainder of the workings however, except in the lower part of the slants, the seam was worked to its full height, yielding about 28 feet of coal. The parting of ironstone which was about six inches thick at the pit increased at the expense of the fall coal going west, and was as far as possible left in taking out the bottom coal.

These pits were worked until the year 1872, when they were abandoned on account of a heavy crush. The Cage pit levels extended only a few yards east of the pit, the coal being coarse and broken. This character is maintained as the seam is followed to

the east, a slope known as the "English" having been recently sunk a few hundred yards east of the Cage pit to a depth of 1800 feet as a test. The apparent disappearance of this seam still further east has been referred to.

In the other direction the levels were extended about 1800 yards. Inside the main incline the pillars have been drawn, but between it and the pit bottom a large area is standing in pillars. Dip slants were driven to the northwest from the pit bottom covering a few acres of work, in which the pillars are standing. In the year 1872 it was found necessary to build off that portion of the Cage pit workings lying west of the incline "Big Brake" on account of fire. This fire was generally believed to have been caused by the roof of the Cage pit falling up to the workings in connection with the Foster pit fire. It was stated by the then inspector (Mr. Poole) that "by some means unexplained after-damp suddenly found its way into the workings of the Cage pit seam." His opinion now, however, is that the fire in the Cage pit was in no way connected with the fire in the upper or main seam.

The explosion in the Foord pit workings of the main seam in 1880 extended through a tunnel into the Cage pit workings, and they have since remained closed.

It is believed that, owing to an explosion in the third seam on Jan. 15th, 1888, to be more fully referred to, the fire originally confined to the portion of the Cage pit lying west of the incline, and built off, extended into the portion already referred to as standing in pillars between the incline and the pit bottom.

A short distance west of the faces of the Dalhousie workings the Foster shaft was sunk in the main seam in the year 1866, and the levels were extended a few yards to the westward. The coal according to the Geological survey report has deteriorated at the face of these levels, having become duller and shaley, and the partings having increased. This is supported by evidence of the comparatively limited amount of good coal in this seam a short distance to the dip where it has recently been opened by a tunnel from the Third seam.

The Foord pit workings in the Main seam were commenced in 1866. While the pit was being holed round, an explosion occurred March 27th, 1869. This necessitated sinking the shaft into the bottom coal, when the levels were turned again into the top coal. The workings of this pit covered about 175 acres. They were confined to the upper part of the seam and varied in height from 7 feet to 18 feet, the bottom coal being untouched. On Nov. 12th, 1880, the seam took fire from an explosion and was closed, and the waters of the East River admitted. It has since remained closed, with the exception of an attempt to reopen it, which will be referred to later on in this report.

The result of this explosion was the total closing of all workings in the Albion area. In 1881 the two next succeeding seams, the Third and the McGregor, were opened. Since that date the latter has been continuously operated. The former has been worked with the exception of a period of non-working caused by an explosion.

It may be remarked here that when the explosion in the Foord pit closed the Cage pit and put an end to all mining operations in the district, the importance of isolation of working was plainly seen. Accordingly, when mines were opened in the McGregor and Third seams, this view was kept in mind. The opening into the latter seam was by means of two slopes entirely independent. However, after a while these were connected, and the explosion in 1887 wrecked both slopes. One was fortunately preserved by a heavy fall, but the other was abandoned. Afterwards the seam was worked by the single slope. In the case of the McGregor mine, operated by a shaft, two dips were driven angling from the pit bottom separated by a barrier, and the number of openings at the top of each dip minimized so that in case of an explosion there would be a fair chance of saving one part of the mine. Now, however, the barrier has been pierced and the work is practically one mine. It is presumed that a necessity for reduction of cost has led to this reversal of the original plan.

During the year 1887 some pillars were drawn in the Third seam under the portion of the Cage pit seam, already referred to as being built off on account of fire, the one next overlying it, and the roof falling up into it an explosion followed.

The workings in the McGregor seam underneath the Third seam are not connected in any way with those overhead. It may be mentioned here that the thickness between the Third and the Cage pit seams supposed to be over 150 feet was really forty feet.

From the plans and evidence it appears that all the workings of the different pits in the Main seam are connected. It would appear that the original design was to keep them isolated by barriers, but they were connected at various times for reasons which now appear, so far as information is available, to have been most improvident.

In the case of the connections between the various workings in the main seam, these have in some cases been accidentally due to inaccuracies in mine plans, while in other cases they seem to have been deliberate, although they do not now seem to have been necessary at any time.

In the opinion of the Commission these connections have not only proved one of the causes of the abandonment of the main seam workings, but have materially contributed to the partial destruction and increased insecurity of the workings in other seams, and the Commission wish to put on record their regret that such a course of connections should have been so persistently followed.

The earlier workings, the Store or Burnt mines section, was isolated from those immediately succeeding them to the dip by a barrier of about 100 feet in thickness. However, some years after they were connected by a head east of the river, and a connection possibly partly a head and partly a borehole was made between the two workings to the rise of the Bye pits. When the Dalhousie pits were sunk to the west of the Burnt mines and Bye pit faces, connections were made from the rise workings of the Dalhousie to the Burnt mines, and from the Dip workings of the Dalhousie to the Bye pit workings; and another connection was made between the Burnt mines and the Bye pit, a short distance east of the faces of the workings of the former pit.

When the Foster pit was sunk to the west of the Dalhousie workings, several connections were made.

Finally in the Foord pit it was definitely settled in 1872 that a very large and ample barrier should be left around the faces of all the older workings to the rise in the same seam. However, in defiance of all the lessons of the past, workings were pushed into the barrier and two connections inadvertently made with the Bye pit and with the Dalhousie workings. These connections let in large bodies of water and caused loss of life. It is believed by many that these connections ultimately led to the loss of the Foord pit, that an explosion in the old workings in the Bye pit communicated through them into the Foord pit. This, however, is a matter of opinion or conjecture, as no positive evidence was available.

It may be mentioned here that the management, not contented with incurring the risk of penetrating the barrier surrounding old workings hurriedly abandoned and admittedly not surveyed up to date, connected the Deep and Main seams by a stone tunnel which transmitted the Foord pit explosion to the Cage pit seam. Years before this the same seams had been connected by a tunnel at the Dalhousie pits.

We thus have presented all the workings in the Main seam since 1827, connected, one would say designedly, with each other and with the Deep seam, forming an immense burrow connected from end to end, and covering a district 168 chains long and 48 chains wide.

In the present system of working at the Albion Mines, there are now four seams connected, viz: the Third, Cage pit, Four feet and Main seams.

It may be stated with reason that the fact of the inaccessibility of the untouched portions of the Main and Cage pit seams through the broken and fire infested outcrops, coupled with the limited extent of good coal in the Third seam, rendered it necessary to utilize the Third seam workings as a means of access to the other named seams. It must, however, be remembered that an accident

to the works in one seam may mean the closing of those in all three.

COAL EXTRACTED.

In this connection the following figures are presented as an approximate:

Up to 1827—sold.....	35,000 tons
1828-1857—sold	1,791,987 “

The figures for 1828-1857 are arrived at by taking the Cape Breton sales from the total Nova Scotia sales for that period, and then allowing 300,000 tons (probable over-estimate) for Joggins coal sold.

1858-1862—Sales from Mines Reports—831,279 tons; allowing 10 per cent. for colliery consumption, the total production up to 1863 would be 2,741,393 tons.

From 1863 to 1880 there were produced 3,218,305 tons. This date marks the closing of all operations in the Main and Cage pit seams, making a total of about 6,000,000 tons extracted from these seams. It has not been considered necessary in this connection to calculate the respective amounts, as the seams are connected.

From 1881 to 1894 the lower seams—the Third and McGregor—have yielded about 1,589,924 tons.

The Vale colliery yielded from the McBean seam from 1872-1889 about 1,151,280 tons.

The system of working adopted when the Main seam was first opened was that of the bord and pillar. Horse roads were driven, owing to the comparatively high angle of the coal, to the rise half across the pitch and bords turned away. About the year 1866 self-acting inclines were introduced and larger breadths of coal worked at a time. The principle, however, remained the same, that of completing the coal winning at one operation, leaving only such pillars as would afford a reasonable support. This system is that in use in the North of England in the early part of the century, modified by the pitch of the coal, and was presumably copied in opening these seams. We thus find large areas of open or connected workings at every pit. Had, on the contrary, the system been adapted in use to win the “thick” seam of Staffordshire, that of close panels, it appears probable that not only would a much larger amount of coal per acre have been secured, but the danger of losing extensive tracts of coal by fire and crushing would have been materially lessened.

Based upon the evidence submitted, it is apparent that owing to successive fires, crushes, etc., all the coal in the workings prior to the opening up of the Foord Pit had been abandoned. At the time the Foord Pit was sunk it was intended to connect it with the Bye

Pit, but on the loss of the latter by fire it was decided to isolate the old workings by a barrier. In November, 1880, this pit exploded after several connections had been inadvertently made with the old works. We now find all the main seam works abandoned and partly filled with water; while along the crop there were fires.

In 1885 a commencement was made to pump out the water. This was completed in 1889, and the bottom was partly repaired. In January, 1891, Mr. Wills took charge of the work of the re-opening of the pit. Finally, after a good deal of work had been done, the fires in the coal became so active that the pit had to be abandoned on Dec. 7th, 1892.

It appears that after the pumping out of the works had been carried on until the bottom of the Fan Shaft had been reached, some air found its way into the old workings, that when the water was lowered enough to permit of work being carried on at the bottom of Foord Pit additional quantities of air passed into the old workings behind the shaft timber and by various openings, some of which were found open and some were made in the course of the re-opening. From a consideration of the evidence submitted it appears that from the start all access of air to the old workings should have been carefully prevented. Especially should this have been done after the fire was discovered at the bottom of the Fan Shaft.

It does not appear necessary to enter into a detailed history of the attempt at re-opening the Foord Pit. The evidence showed that there was a lack of co-operation between Mr. Wills, the manager, and Mr. Poole, the agent of the company. The statements submitted by these two gentlemen are of an extremely contradictory nature. From their evidence and the evidence of others it appears that the proposal of Mr. Wills to line the shaft with brick was not carried out, nor was any alternative scheme adopted for excluding the air that was passing into the old workings through the timber lining of the shaft.

It further appears that not only was it necessary to line the shaft in some manner so to prevent the air entering the old workings through the timber lining of the shaft, but that all other openings already existing into the old workings or made in the course of re-opening the Foord Pit should have been hermetically closed. It appears to the Commission that even had this been done it would have been doubtfully feasible to have continued working in the bottom coal under the old workings, but that if these precautions had been taken it would have been quite feasible to have worked the solid coal to the deep of the shaft.

Without entering into the merits of the statements of the two gentlemen more immediately connected with the work of re-opening this pit, the Commission consider that the effectual exclusion of air

from the old workings was a vital matter, and that in this respect a want of judgment was shown by the company.

The question of the feasibility of regaining the coal left in the old workings of the Burnt, Bye, Dalhousie and Foord pit workings, may be considered. The Foord pit and Dalhousie pits need not be considered of value in this connection, as the former is in poor coal and the latter practically worked out.

Evidence shows that in the Burnt Mines the bottom coal is untouched, and that the same is the case in the Bye pit. That there is a certain amount of pillar coal left in the upper or worked portion of the seam. The evidence as to the quality of this bottom coal, while not conclusive, points to its being workable for ordinary purposes.

These workings are connected with each other, and would require to be isolated from the Dalhousie and Foord pit workings. It would appear that this bottom coal could not be safely mined without provision having first been made for building off connections, extinguishing fires and providing ventilation in the upper workings of the seam. If this were done of course both the old workings and the bottom coal would be available.

Upon consideration it would not at present appear feasible to attempt the re-opening of these old workings, by any independent working in the bottom coal. The reasons for this view may be given briefly as follows: It may be admitted for instance that a slope could be driven from the crop of the main seam in the bottom coal under the old workings and that thousands of tons of coal could be extracted perhaps for some space of years. It must, however, be remembered that there is evidence to show that at numerous points the bottom coal was cut into, for air, drainage, sumps, water standages, etc., of which there does not appear to be any record, and that in places, more or less, coal was mined from the lower part of the seam. Any breaking into these places would result in communication with the upper workings with their fires.

Again, as is well known, the coal is of an open character, and in some localities broken by types and faults, so that the admission of air to the old upper workings would be unavoidable. There is also the risk of direct communication being made at any moment by a fall of the coal roof, or by the pressure of the old pillars on the vacant space made below by the new excavations. Any such opening therefore made in the bottom coal and abandoned would only present a further obstacle to any future attempt to utilize the coal.

It may be remarked here that the same opinion would be expressed as to any attempt to enter the bottom coal in the Burnt and Bye pits through the bottom coal in the old workings of the Foord pit.

As to the matter of working the old pillars in the Foord pit, (assuming the recovery of the Foord pit shafts possible,) it may be remarked that experience having shown that the admission of air into them causes or rekindles fires in the coal, it is evident that the top pillars cannot be worked to advantage even if it were possible to build off the connections between the Foord pit and the By and Dalhousie pits.

As to working the bottom part of the Main seam in the Foord pit old workings, assuming the recovery of the pit, it may be remarked that the evidence shows that the height of coal worked in the upper part of the seam from the Foord pit varied greatly, from 7 to 18 feet. The workings in the bottom coal carried on after the pit was opened again did in several cases penetrate into the old workings in the upper part of the seam. It therefore appears that while a considerable amount of coal could probably be recovered by working in the bottom coal without reference to the upper working in the same seam, that owing to the dangerous state of the working in the upper part of the seam, it would undoubtedly at any moment be subjected to the risk of abandonment through falls of the roof, coal, etc., communicating with the upper workings.

It may be remarked here that from calculations of a general nature, it would appear that there is in the bottom coal in the Burnt, By and Foord pit workings, and in the pillars in the upper part of the same seam (all in the Main seam) over 10,000,000 tons of coal.

Referring to the old workings in the Cage pit, a good deal of evidence was produced that in the part of the workings lying between the big break and the shaft there were many pillars worth removing. At present these old workings cannot be entered, as the big brake stoppings already referred to were broken by the explosion connecting the Cage Pit and Third Seams, and the opinion has been expressed that there is fire in them. A large amount of this ground lies beyond the crop of the Main seam, and the pillars could be drawn without consideration of the overlying Main seam. The pillars, however, in the dip slant of the Cage pit would lie under the Main seam workings. These workings a few years ago were on fire and the removal of pillars in the seam below would be attended with risk. The commission believe that, in view of the evidence offered, this section only of the old workings would warrant an attempt at re-opening at present.

As to the solid coal lying to the dip of the Foord pit, the weight of evidence appears clear that it is possible to re-open the Foord pit, provided that no serious injury was done to the bottom of the shaft by the explosion occurring at the time of the last abandonment, and to work this coal, and that there is a large amount available.

As to the quality of the bottom coal under the old workings of the Foord pit and to the dip of the shafts, evidence was general to the effect that it was as good as any mined in the district, that it was merchantable, and that whatever of bottom coal was mined during the re-opening was found satisfactory by consumers.

Taking now a general view of all the old workings, it will be noticed that they are all connected, that up to a recent date active fires raged along the outerop, that in the Cage pit there is fire, that the Cage and Third seam workings are connected, and that fire from the Cage pit was carried down to the underlying seam, that upon admission of air to these old workings the fires appear again, that in the case of the Foster pit the coal is worthless, and in the case of the Dalhousie pit the coal is practically exhausted, that throughout all the extent of the Main seam the water has to be kept pumped out in order that the workings in the lower seams may be dry, thus the unavoidable admission of air tends to keep the fires alit.

In view of the fact that the present and future operations in the lower seams depend for their safety on their not communicating with the upper seam workings, a question arises as what should be done to these old workings in the Main seam in order to secure the lower seams from this serious risk. The only effectual method apparent to this end would be the flooding of the workings up to the level of the river. This would involve filling up all the present workings in the lower seams except the McGregor. When this had been done any fire existing in the crop could be isolated and the coal gradually worked out as the water was lowered. This method would involve an immense expenditure of money and time, and except in the case of the McGregor colliery, would cause a cessation for some time of the workings now being carried on in the Stellarton district; but it appears clear that the present system of working the lower seams underneath this abandoned Main seam is one already productive of serious damage, and of undoubted danger for the future. If as might readily happen the present operations in the Four feet seam, Cage and Third seams were interrupted by an accident to any one of them, due to connection with fires in the Main or Cage pit seams, as they are all connected, the Albion district would be left practically with one mine.

It appears to be evident that the present workings are carried on with an imminent menace from the fires in the upper workings, and are subject to stoppage at any time from this source.

It may be shown that the expense involved in this undertaking would be prohibitive at the present prices of coal, and that the carrying out of the scheme as outlined would be beyond the powers of the company at present owning the area under consideration.

It appears evident, however, that neither now or at any future time will it be feasible to mine the coal in the abandoned workings

of the Main seam, unless steps are taken to extinguish all crop fires and to prevent recurrence of spontaneous fires in the deeper sections by admission of air, or relighting of any fires that may have burned down from the crop. If no attention be paid to the workings at present carried on in the Albion area, or if they were for any reason abandoned, the immediate filling of the workings with water would be recognized as the only method of preserving the coal for future use.

The commission believes that the future mining of much coal in this seam, and of larger amounts than at present in the lower seams, would ultimately be secured by the course suggested.

The evidence taken with respect to the Vale Colliery, McBean seam, shows that when the seam was abandoned on account of fire, it was filled with water, and that the fire is now extinguished. The bottom of the slope was down 3000 feet, and workings extended east and west. The workings are limited to the east by faults; to the westward, the coal which at the crop was coarse was good in quality to the deep. The workings of the Six feet seam, overlying the McBean, proved the centre of the basin at a point about 1000 feet in advance of the bottom of the McBean slope.

It would appear that there should be a very considerable extent of good coal yet available in this seam. From the evidence it appeared that the quality of the coal at the time of abandonment was good. From all available evidence it would appear that the main slope is doubtfully available for re-opening, but the so-called "new slope" would in all probability be available for access to the unworked coal. Calculations as to the amount of workable coal that could be opened up by this slope are to a certain extent conjectural, but may fairly be anticipated as at least equal to that already worked. This point could be settled, however, by boreholes on the reverse dip of the seam beyond the centre of the basin.

The six feet seam has proved a disappointment ever since it was opened. The seam has thinned seriously, and has yielded much coal which could not be sold. It is currently reported that the Acadia Coal Company are in doubt as to its further extended working. As this mine is not directly connected with the subject of the enquiry, it may only be remarked that any boreholes to determine the value of the remainder of the McBean seam would also prove the extent and value of the six feet seam.

All of which is respectfully submitted.

EDWIN GILPIN, JR.
WILLIAM MADDIN, JR.
HENRY MITCHELL,
A. DICK.

EVIDENCE TAKEN

In an enquiry into the History, Causes, and Effects of the Fires in the Coal Mines in Pictou County.

STELLARTON, May 14, 1895.

GEORGE KELLOCK—I have worked here a good while. I worked in the old By pit, that is the first one I worked in. I cut coal there after the crush. I loaded before that. I started to load there about 1856 or thereabouts.

Q. When was the By pit sunk? A. I can just remember of it being sunk, and that is all.

Q. Have you any general knowledge of the By pit, or state it was in when you commenced to work there? A. It appeared to be in a good state when I was in it.

Q. Was it a large pit? A. Yes; pretty large. Well on for a mile from end to end.

Q. Did you work on the east side of it? A. I worked pretty much on the north side of it. I worked there till she crushed.

Q. What part of her crushed? A. She started as far as I mined—No. 2.

Q. No. 2 Gate road? About the first turn out.

Q. What work was it that was crushed—just the ordinary bord and pillar work? A. Ordinary bord.

Q. What sized bords? A. 18 feet by 12 feet high.

Q. In the top coal? A. 9 feet.

Q. Did the crush extend over much of the pit? A. I could not say—it did not much at that time but it crushed after. They were working in after the crush. She did not all crush.

Q. After the first crush which you said was in 1850, then they went on working further to the west? A. She did not crush in 1856, that was the time I went to the pit—the time I went to load. I was in the pit after that driving—after that I took the picks. I did not stay longer in the By pit.

Q. Had you any general knowledge of the pit? A. No, not a great deal. I know pretty much what way it was worked. They worked with a little difference from now. Then all gate roads.

Q. Was the whole thickness of the coal worked in the pit? A. No—only 12 feet of coal worked—12 feet top.

Q. Then you were not in the By pit the time she was lost? A. No. I left her about the time after she crushed.

Q. When did the first crush take place? A. I could not

exactly say—well on for '56-1856—my memory is not very good now.

Q. What connections were there between the By pit and the pits further to the rise? A. They were all connected—the Stair pit, Chain pit, Air pit. The main gateway would run from one to the other. The Stair pit was the one furthest up. No. 4, No. 3, No. 2 and then No. 1.

Q. Was there any barrier above these pits? A. I could not tell you.

Q. Why didn't they work the bottom coal there? A. I could not say.

Q. Didn't they have a fire in the pit while you were in it in the old Bye pit? A. Yes there was a fire in it, but I was not in it at the time. I was at the back mines about that time.

Q. Do you know what the fire originated from? A. No—could not say. That was the time McKenzie was lost and Robinson.

Q. Was there a fire in it before the year 1861 when Robertson, Roache and McKenzie were lost? A. There was a little bit of an explosion in it. I was in it at the time.

Q. Was the pit ever worked after the explosion? A. Yes. She did not do much harm.

Q. What were those men doing? A. Night watchmen. This explosion I mean was a body of gas caught off a man's lamp.

Q. Then there was another explosion there from a shot after that? A. I do not remember.

Q. What time was it you went to the Cage pit? A. I went there shortly after she was sunk.

Q. Then I suppose you worked a good deal in the Cage pit? A. I worked in it pretty much from the time she was sunk.

Q. I remember you working in the Cage pit in 1871? A. Yes.

Q. What part of the Cage pit did you work in last? A. Indeed I could not readily tell you which part of it. I think it was in the second bord next to the railway. I worked on the railway bord too.

Q. Did you ever draw any pillars in the Cage pit? A. No. Yes, I did a little. I think so, in the Cage pit. We would just drive a head and take a piece out, then drive another head and take a piece out.

Q. Do you remember building a piece of the Cage pit off? A. Yes. I worked in the whole of it, all through it.

Q. Do you remember building off that pit there (indicating on plan)? I remind them building it off for fire or something.

Q. You never did any shift work in the Cage pit? A. No. Very little. A few shifts. Occasional shift work. I worked in

the Cage pit where it is built off. I do not know the cause of the fire. I do not know whether it was caused by an explosion. I do not know the time when it was built off now; it is a good spell.

Q. You worked in the old By pit on the slants on the south side? A. No I worked on the north side. Wm. Hall worked next to me. I do not think the fire in the cage pit took place from an explosion.

Q. Do you remember where you were working when they built it off? A. I was working at a bord on the gin slants.

Q. It did not affect your working place? A. The damp used to affect us a little. We left it for that several times. Too bad; could not work. It affected me more than I wanted, and I have never got the better of it since.

Q. Were you there when Patrick was killed? Yes.

Q. Did that explosion do any damage beyond killing the two men? A. No, it did not do much damage. Redpath was killed. It did not do any damage to the pit.

THOMAS LENNON—Called and testified as follows:

Q. What pit did you work in first? A. I worked in No. 3 pit first (By pit.)

Q. You did not do any work in the older pit? A. No, sir. They were lost in 1839. I commenced work in 1841.

Q. You have heard what Mr. Kellock has said about the By pit, that they did not work any coal there except the 12 foot coal? A. That was the top seam. They generally worked the coal 12 feet, but there was more coal under it. They did not work in the By pit to the full thickness of the seam. There were four pits in a string.

Q. Do you know what barrier was left between those pits and the pits to the rise? A. Yes, the old Store pits. I could not say much about it, there was a head drove up from the head to the furnaces in 1844. I could not see the thickness. I was only quite young at the time. They filled the Store pits with water and then took it out again.

Q. Was the fire out then? A. Yes. There were five pits. There were two drew coal on the one range. Only one side worked to the north-west (Old Store pit.)

Q. Did the Store pit connect with the By pit? A. It did afterwards. It was not connected before 1839. These pits—the By—were only sunk then, but were not connected then. I think they were connected in 1844. The Store pit was sunk on the same level as the By pit. The Store pit was between the By pit and the River. They used to hoist coal out of it. It is in the old Store pits where the five shafts were.

Q. Did you work in any of the dip slants in the By pit? A. Yes. I worked in the last slant drove south. We drove down a back slant and drove a crosseut to meet the main slant. That was the last place in the old By pit and where John McNeil and I got burnt.

Q. Did you work in the Dip slant on the north side of the By pit? A. Yes, sir, I did in 1860. I was working there.

Q. Do you remember anything about the crush in the By pit about 1856 or 1857? A. It was in 1850 that the pits crushed 10th September. In 1864 it crushed. The old Bye pit was crushed on the 10th September, 1850. They drove a slant 170 yards in the dip to get the tools. I do not think it was a great distance—160 or 170 yards.

Q. Then they continued working? A. They continued until 1854 in the By pit until Scott came. Then he started the slants to the dip.

Q. Did those slants crush? A. No. Those slants did not crush. She was lost in 1861 and was never worked after that. She was on fire from the last of May to the middle of January, 1861. Then they let the River in.

Q. They let the River in at the pump shaft at the old By pit. They had a sluice cut in there? A. Yes, sir.

Q. What year was it that they let the water in on the north side? A. In January, 1862. She exploded in May, 1861, and was on fire the summer of 1862. After she had crushed they took out about four feet of bottom coal to make a road through. With respect to the thickness where it was tried in the old By pit it was 42½ feet. They took 12 feet off the top. I worked the coal 27 feet in the Dalhousie pit.

Q. After the By pit was closed up you went to the Dalhousie pit. You were in the Cage pit? A. I did not work a great deal in the Cage pit. I worked mostly in the old Bye pit.

Q. What part of the Dalhousie pit did you work in? A. On the rise working and on the dip workings.

Q. Were you in the Dalhousie when it crushed? A. I was in the Cage pit when the Dalhousie crushed.

Q. Could you tell us about the crush? A. I worked in her after she did crush. I worked in it in the winter and spring to about the middle of May; then she crushed again.

Q. Did that crush spoil much of the pit? A. It spoilt all the dip workings. And next fall again I worked there.

Q. Did you work in that part of the Dalhousie pit connected with the Foster pit? A. In No. 8 landing, that is where they connected it.

Q. Do you know anything about that yourself? A. No; I know where it is. I worked down on the same landing and the landing above it.

Q. In the Dalhousie pit, where did they work the thick coal to its full height? A. They worked 12 feet off the top, then 18 feet of bottom afterwards.

Q. According to that the Dalhousie pit is cleaned out? A. Yes; it is pretty well. There is a lot of coal below No. 8 landing yet.

Q. Did they take all the coal out in the dip workings? A. No, sir, only between 9 and 10 feet from stone to stone. After she crushed we worked some open cast places to the rise.

Q. What part of the Cage pit did you work in? A. The last place was away in by the back. It was in taking out them pillars.

Q. You were the first man I saw in the Cage pit (Mr. Gilpin)? A. Yes.

Q. Do you know anything about that part of the Cage pit which was built off on account of the fire? Yes, sir, I worked there at one of those pillars.

Q. How many balances was it in from the brake? A. It was a long ways in. It was just about where the balance was started. The first balance was driven up through the ribs. There were five bords on the first balance.

Q. Did you take the pillars out clean there in that section of the Cage pit? A. Yes. There were four or five of us working abreast.

Q. Do you know anything about that fire in the Cage pit? A. I do not know unless it came by the roof falling up to the Foster pit.

Q. Do you think it was spontaneous combustion? A. Cannot say.

Q. Do you ever remember the slack heating in the Cage pit? A. I do not know; I cannot say that I did.

Q. Did you ever see any fire in the mine—did you see the face of the coal burning? A. I saw many fires in the pit. I have seen the face of the coal burning. I have seen it at one place about the size of a lamp blaze when we went to breakfast and when we came back again after breakfast it was about half the size of this building.

Q. What makes you think that the fire in the Cage pit was caused by the roof falling to the seam above? A. That is the only way I can think of.

Q. Where did the fire in the seam above come from? A. I cannot tell you. The Foster pit fire was in 1870.

Q. When you would suppose that that fire in the Foster pit had went up to the crop enough to come over to where these pillars were drawn in the Cage pit? A. Yes; it went up through the old Dalhousie workings because it was connected.

Q. You worked in the Foord pit too? A. Yes, sir. I worked in her from the time she opened up first. The first fire was in 1869. I worked there until she was lost.

Q. What was the height of the coal in the Foord pit? A. They worked it at all heights there. I have been in places where it was worked 15 ft., 16 ft. and 17 ft., and as low as 9 ft. and 7 ft.—from 7 ft. to 17 ft.

Q. What was the reason for the difference in the thickness of the workings—was it on account of thinning? A. It was all good coal. I do not know that they tried the thickness of the coal down in the Foord pit.

Q. Where did you work the coal thinner? A. We just took it at a certain height. We were only allowed to take it at a certain height and a certain width.

Q. Was there ever any fire in the Dalhousie pit? A. Not that ever I knew. Not until that time it came from the Foster pit. I have seen a little gas in the Dalhousie pit. There was a little gas to the dip. There was a tremendous lot of gas in the old By pit.

Q. No. 8 landing, Dalhousie pit, was below the shaft? A. The eighth landing from the head of the slant.

Q. How did they count those landings? A. From the bottom—from the left hand side down the slant. No. 8 was on the left hand side going down. That was the landing where the communication was made with the Foster pit. The connection was made in some of the back bords. There was a place just drove through. I could not say the exact bord, because I never was through there. I worked on the same landing many a time.

Q. No big coal was worked below number 8 landing? A. Not that I can remember. All the big coal was worked above that. Landings numbers 8 and 9 were on the same side. Number 7 came in on the opposite side below number 8. Numbers 10 and 11 were worked out. The last place I worked in was No. 4, where the water broke into the Foord pit from No. 4 landing.

Q. Did you work at the bottom of the Dalhousie pit slant? A. No. I worked at No. 3 landing, and the last place I worked at was at No. 4.

Q. Was it in, to the face to the west? A. Coming this way to the southeast. The full height of the coal was worked at No. 8 landing, the Foster pit connection. They worked the big coal on the north side of No. 4. The underground engine house was on the north side of the Foster pit. I was not in the Foster pit when it was stopped. The coal was drawn through the main slant by a gin. From the cross-cut it would be 78 or 80 yards down up to the slant.

Q. Those workings in the Foster pit coming to the east were in the top coal? A. Yes. The old 12 ft. coal. It was called the 9 ft. 3 in. by a woman.

Q. You never saw the connection between the Foster pit and the Dalhousie pit? A. I saw it and passed it. It was in the 14 ft. coal. I could see it every day. I was in the Cago pit at the time the Foster pit was lost.

Q. What kind of stoppings were they just where they made the connection between the Foster pit and the Dalhousie pit? A. I cannot say anything about that. They had a road they used to travel through there. I think the hole went through some of the boards. I dare say it was in the main level of the Foster pit. It was in 1839 the Store pits were lost. The reason the first fire was caused it was thought they had fired a shot and had left it without turning over the bench. There were four or five men blamed for it. I was quite young at the time. The second fire was in 1836. Three men were killed. It was a little further over the river. A son of old John Dicks, a man by the name of Dan Horn, John Blackwood, Marshall and Lynch went down to clean the roads. It was the last ring of the skip. It was away in the basin. 36 horses were lost at that time and three men burnt—Benjamin Little, Daniel Holland and Wm. Dick, a boy of 15 years of age. All these pits were started in 1837. No. 2 was down in 1838 to the coal, and the By pit was too. In 1838, July 5th, the pit exploded. Wm. Lowe and Jim Keown and a man by the name of McKenzie were killed. McKenzie was blown 100 yards from the pit mouth.

Q. How much did they pay you a cubic yard? A. I remember seeing the coal paid at 15 pence, 14 pence and 16 pence and 27 cents an hour—and as high as 55 pence wide work and narrow work. I have seen 98 cents paid for level.

Q. After this explosion you were just telling us that they closed in the store pits? A. They let in the water in 183, but they worked the Top pit and No. 3 after that. The five pits were used to draw coal from, but the three bottom pits did not work.

Q. I noticed that they worked right under the river in the old Store pits? A. It was only one pit the old Store pit. Across the river there is a dam to keep the water back.

Q. After they worked the store pit they left a barrier, they went to the dip in the old By pit; now the top bord of the old By pit went along by that barrier and crossed the river about three chains below the bridge and went right over and finally was stopped on the other side of the river, near the road to Springville? A. I do not think the main railroad of the top pit went past the bridge. The drift from the top bord of the By pit working to the lower bord of the Store pit through the barrier was for the purpose of taking out the tools.

Q. If you were at this head driven by Avrick, whereabouts would you go to find this dam? A. It was away in here to the rise of the place where Avrick drove. The dam was put there to keep the water back. The dam was over here on the west side of the little river. I have been up to the place. I think that dam is

all gone away now. No fire was left in the Store pits then. The next fire was in 1838—the next explosion—when No. 2 exploded, which was sunk. Then the Old Store pits took fire in October, 1839. Then Mr. Poole came here in 1840. A. Vriek came here in 1841, in October or September. The next explosion was in 1858, that is when George Redpath and Jim Russell were killed in the Cage pit. Then in 1861 or 1864 the Cage pit fired again. These were all explosions by gas.

Q. What caused these fires burning now; was it from these explosions or spontaneous combustion of the mine? A. It was in 1867 the By pit caught on fire from a shot, and they could not put the fire out, and so they let the water in and they drove the fire up to the rise working.

Q. How did it get up there? A. The blast took it up there.

Q. Before 1867 the old Store pit and the Top pits had been tied on to the old By pit—they were all connected to each other? A. Yes.

Q. And the fire was driven up into the old Store pit? A. Yes. I do not think there is any fire in the old Store pit.

Q. Were the lower slants going down towards the Foord pit at that time? A. Yes. They were started. Two slants were there, that is where the last water broke into the Foord pit after 1879.

Q. The Dalhousie pit and the Foster pit were opened on to the old By pit? A. Yes. There was a place drove where 14 feet of coal came out.

Q. That fire in the Foster pit, how is it supposed it occurred? A. I could not say.

Q. There never was any fire in the Dalhousie pit until it came from the Foster pit? A. No, sir.

ALEXANDER McDONALD—Called and testified as follows:

Q. You have heard all that has been said; how does it strike you as falling within your own recollections? A. Yes, sir. I think it falls within my own recollections.

Q. You do not go as far back as Mr. Lennon? A. No, sir.

Q. Where did you first start working here? A. In the Dalhousie pit.

Q. What part of the pit? A. I began as a trapper boy.

Q. When you got farther on were you still in the Dalhousie? A. I was taken to the Cage pit in 1861—the summer of 1861 I started.

Q. You do not know anything about the Dalhousie? A.

Nothing. I was only a boy there. I was taken in the summer of 1862.

Q. When you got to the Cage pit you started cutting coal?
A. I was too good a boy to cut coal.

Q. You cut some coal in the Cage pit? A. No, sir, I did not cut any coal in the Cage pit, but I cut coal in the Foord pit.

Q. I suppose you were more acquainted with the Cage pit, more so than with the Dalhousie? A. Yes, sir, I was acquainted with the Cage pit.

Q. We have been trying to find something about that fire in the Cage pit built off in the west along the railway level? I do not know about that—I was not here at the time it happened.

Q. Do you know where it was built off—were you there afterwards in the pit? A. Yes.

Q. What did they have at the head of the break? A. I did not work at the stoppings myself. I have traversed those stoppings afterwards.

Q. You went down the dip slant and up through? A. I went down the travelling road at that time.

Q. In going down this slant of the Cage pit, you say you saw no signs of fire? A. We saw where the fire had been. I suppose there would be ten feet of coke there.

Q. You did not get down to the iron doors? A. No. The fire was all out, but just the burnt coke was there.

TUESDAY EVENING, May 14th, 1895.

JOHN DOUGLAS—was duly called and testified as follows:

Q. Can you tell us about any of the workings here besides the Cage pit; did you work in any of the older pits? A. I worked down in the By pit.

Q. About what time did you commence working there? A. Back in 1858.

Q. You have heard what the other witnesses have told us about that pit? Is there anything that you think of that you could add to that? A. I might just say in connection here that it was spoken of, that there were two places when it was drove from the By pit to the Dalhousie, that connection was in the big coal there.

Q. Did they make that connection on purpose? A. Yes, to take the horses from the Dalhousie to the By pit.

Q. There seems to have been several connections according to the plan? A. I only remember them—two being drawn. In No. 4 level of Dalhousie they came through. At the time the damp came through it was walled off. There was a drift from the Cage

pit seam to take the water from the Cage pit seam to the Dalhousie. Then they knocked the pump off at the Cage pit. Two drifts drawn through. It was put down before I came to this country.

Q. That drift was through into the Top pit? A. That drift commenced from the lodgment in the Cage pit, and it came through very near the Dalhousie pit bottom, a little to the west side in the mine bord, not 20 yards from the Dalhousie pit bottom, and the water fell through there.

Q. From the top bord of the By pit into the lodgment of the Dalhousie pit just opposite where you said there is a head? A. The water would fall into that By pit through that head.

Q. A little in past the pit bottom? A. Yes.

Q. About what time did you go to the Cage pit? A. 1867.

Q. That connection between the Dalhousie pit and the Cage pit was built off after the By pit was abandoned? A. The damp came through and the silting up prevented the necessity of any especial stopping.

Q. How far was the Cage pit worked in when you went there? A. It was in past the big break. I would say it was in 500 yards.

Q. That is where you commenced to drive the back balance? A. Yes, a little past the big break.

Q. You worked on until you got to? A. To the face of the railroad bord.

Q. Have you any idea what year that was? A. 1872 or 1873 when we stopped there—speaking from memory.

Q. When did you commence to draw the pillars out of those balances? A. There were some pillars taken out back there. (About two squares of work back from the face of the level.)

Q. This plan has the pillars marked on here in that back balance. They do not seem to have been all drawn. Do you think that is correct? A. I do not think the plan is far wrong. I think it is for this reason, she fell through to the seam above and kind of stopped the progress of taking out the pillars.

Q. Owing to the coal falling and filling, your idea is that that is the reason you did not clean out all these pillars? A. We should have succeeded in taking up the pillars had not the damp come through and caused us to stop. The damp coming through caused it to be abandoned.

Q. You say that you had got a fall in one of those balances, and that it fell through to the upper seam and gave off damp; have you any idea what balance you first noticed that in? A. It was the outer balance on the main level of the Cage pit.

Q. What step did they take when they found there was damp coming in? A. The next step taken was to abandon that part and come back and build off alongside the big break.

Q. You say that your recollection is that you stopped there because there was damp which had come through from the roof falling to the seam above; are you sure of that? A. I have a pretty good idea that it was so.

Q. Could it have been the heating of any of the pillars that were breaking or of the slack coal left there? A. If there had been more evidence to support it you would have thought that to be the case. I noticed after the fall in the pillars the water started to come although we could not get into the very place. The water was hot and continued to run. It was from 90 to 100 degrees.

Q. Could not that have been some water from the upper level of the Cage pit seam? A. No, sir. The redness of the water and its foxy appearance led me to believe it was standing water.

Q. You say that it was this first balance? A. I think it was in this first balance.

Q. What was the nature of the falling? A. Caved.

Q. What was the material? A. Shale. There is only 157 feet between the two seams of material. I doubt that it was more than 130 feet—pretty much all shale. As it fell undoubtedly it slid down an angle of 18 degrees. The fire was in the upper seam. The fire was not in the shale.

Q. Was the water in the upper seam slant? A. The water was there. I think there was about 130 feet between them. It (water) fell through from the upper seam. We could not get within 100 yards of the fall. Men were falling in putting up the stoppings. In fact I thought we were going to lose the pit at one time.

Q. Did you ever know of anything heating the coal in the Cage pit? A. No, I cannot say. I do not think the coal would by spontaneous combustion.

Q. Well, how did you build that fire off—you say the mine bord was there opposite the big break? A. Commenced there first; putting the stopping in there first: they left a pipe to test the water as it came out to see the temperature of it. The mine bord was along there, that is the first stopping, then we followed up alongside of the big break. The stoppings were built of stone and lime; the one on the road was built of brick and the mine bord.

Q. When you got up there did you continue up to the crop? A. We built it off on the top to the crop. The air there was turned to the left to the furnace after the stopping. The air was diverted around this bord to the furnace. There were 14 stoppings on the balance.

Q. What was the object of turning the air this way? A. Less stoppings were needed. We had one on the railroad. There was a stopping across the back balance too.

Q. After you built it off did you see any damp in the return there? A. No. It was six months before we finished the stopping.

Q. These stoppings were examined and found in good order until the Foord pit trouble? Yes. They appeared to me to be good until that accident at the Foord pit. At least we found them so—Mr. Poole and several of his subordinates. We went down that way and found them all right. One was leaking but the rest were all good before the explosion (The stoppings.)

Q. What explosion do you refer to? A. The last explosion. The explosion in the slopes.

Q. Which one of the stoppings was it that was leaking? A. The second one down from the head of the break. I was into that stopping. It was built of black stone. What caused it to leak was a little break in it. That was shortly before the explosion in the third seam.

Q. Taking your opinion that that fire in the Cage pit was due to the falling of the upper seam, have you any reason to think that that fire has extended in the Cage pit to the crop—had it worked up through the level to the top of the big break, up to the top of these crop workings? A. During the explosion of the third seam she came out along the crop; therefore I have reason to believe it came up there. There was a hole three or four hundred yards from the present workings and she blew there strong.

Q. Did you notice anything before the explosion in the third seam? I did. That is the McNaughton hole. I observed several days before that the dust was coming up strong in this hole from the blast in the third seam. There was a great velocity in the current and I reported it, and the fire came up there in the explosion; therefore it must have extended in the Cage pit crop?

Q. Was it dust or heat came through the hole? A. It appeared to be little fine particles of coal thrown up 8 or 10 feet high. It continued for a few days.

Q. And shortly after that there was a explosion in the third seam—was that felt along the crop of the Cage pit seam? A. Yes. Because McNaughton's hole was in the Cage pit seam.

Q. Then what do you suppose are the present conditions of the workings up there at the crop now—have you any reason to think there is any fire in it? A. Possibly.

Q. At the time this dust was blown up, was it before you found that stopping leaking? A. The stopping was leaking first. The damp was coming out, not drawing in.

Q. You were in the third seam at the time of the explosion? A. Yes. I was the manager.

Q. How long after was it you got the fall in the 3rd seam before you got that panel built off? A. It might be two weeks.

Q. You observed this great giving off of dust from this hole of McNaughton's during the time that this fall was open in the 3rd seam? A. Yes. We found it that way at McNaughton hole. Sometimes it would be drawing in and sometimes it would be giving off. We intended to go back to that break in the wall, but it was too late. The explosion took place soon after that—the explosion in the 3rd pit seam. I never got a chance of seeing those stoppings after that explosion.

Q. What caused that explosion in the third seam? A. There is reason to believe that she fell through to the Cage pit seam. There were 106 feet between the third seam and the Cage pit seam—further out it measures thinner 50 or 60 feet.

Q. What caused the fire to fall through from the 3rd to the 2nd seam? A. Taking the pillars out from the 3rd.

Q. You were there when they made the connection to the Foord pit? A. Yes.

Q. Am I right in saying that you started near the bottom of the Engine plane and drove back the slant to the south and then went straight down the hill? A. Yes, on the south side of the engine plane one lift. We drove down 15 chains, then the Foord pit men met us.

Q. Where were the iron doors? A. At the bottom of the slant from the Cage pit. When that accident occurred in the Foord pit the idea was that the explosion came up, all up here (indicating on the plan). Have you any reason to believe that the explosion came that way? A. I have every reason to believe that it came that way (connection between Foord pit and Cage pit.) For two weeks after the explosion in the Foord pit we tried to get down this way to the iron doors and we could not get more than half way down the engine plane, and next day we found that the fumes and damp coming up were getting stronger, and we could not get down as far as on the previous day. I have reason to believe that it came that way, and finally one morning Mr. Stuart and I went down the pit shaft and we saw the fire; everything at the bottom was ablaze.

Q. What sort of a condition as to moisture were the workings between the Cage pit slant and the Foord pit? A. We had a moderate quantity of water.

Q. Afterwards, at the time of the Foord pit explosion, were these slants wet? A. I think it was about 150 gallons a minute running on the bottom. (The bottom of the slants between the Cage pit and the Foord pit.) The workings were dry in the lower lift of the Cage pit.

Q. Was the tunnel wet? A. The tunnel was sloppy. Everything was in a blaze the last time we were down.

Q. Do you suppose in the interval between the last trip and the one before that the fire extended up here? A. Yes. (Up to

the pit bottom.) We went out of the pit five minutes before it exploded. (The Cage pit.)

Q. After you got out what did you do? A. Steps were taken then to put down gas—carbonic acid gas.

Q. You covered the pits up first? A. Yes. The order was to let down the gas to check the fire.

Q. How long was it after the explosion that you got in it again? A. Shortly before the explosion in 1887.

Q. When you got down to see it how did it look? A. It looked favorable. That was some years after the explosion.

Q. Do you think there is any fire in the Cage pit? A. At present it would be in the extreme crop workings to the west. It is possible there might be.

Q. You told us that you were in the By pit for a while? A. Yes, sir.

Q. I notice on the plan that there is a head marked as being driven up into that barrier between the Stair pit to the Stone pit, but not put all the way through—do you know anything about that? A. There is only one on the south side from the Dalhousie pit bottom (Rois.) I know nothing about that head being driven into that barrier at the Stair pit.

Q. Do you remember anything about these workings driven under the river? A. They were driven before I came. I was never in them. 12 chains east of the Dalhousie pit bottom Mr. Scott put the head through to the Burnt mines. They had been on fire previous. They were standing when I was in them—not crushed. I am inclined to think that they were driven by Scott to take the water down there—to take away the surface water; they were driven before I came here.

Q. Were you in the Foster pit at all? A. Very little. I was never in it during the time they were drawing coal. I was in a little spell when they were drawing water. Keeping the water down.

Q. Did you see any fire coming down there—coming down the Cage pit engine plane? A. We saw the material coming down which indicated that the fire was not far off. It had been built off in the third seam after the explosion, where we had been robbing the pillars.

Q. What was the reason you thought that the explosion came from the Foord pit? A. It was Sunday when she exploded. We tried on Monday or Tuesday to get down; we met fumes of damp coming up. After the explosion in the Foord pit the fumes were like a shower. We went down the Cage pit slant 3 or 4 days after. It was kind of dripping like, showery. The explosion was confined chiefly to the south side of the Foord pit. These iron doors were put there to disconnect the two pits. Finally it was determined by

the management to take a split of air down and supply these bords. The travelling road was fair after the explosion. There were fumes as we went along. Some of the men in the workings there did not know of the explosion. I got 25 men out myself. I was in the stone drift when the first explosion took place.

Q. What thickness of coal was worked in the Cage pit? A. The whole seam is 22 feet thick. We worked about 12 feet. We generally worked about 12 feet of good coal. The top and bottom was a little coarse. About two feet on the top was a little coarse.

Q. Did you do any work in the four feet seam? A. We drove down about 15 chains in the four feet seam. There was some opening at the pit bottom, but they found the top was bad.

Q. Was there any other opening in the four feet seam? A. It was pierced outside of the brake to see if it was any good there, but they decided not to work it.

Q. Was there any coal worked out of the Cage pit bottom in the four feet seam? A. Yes; about a chain in length, the roof being bad they closed it and went below.

Q. Are you pretty familiar with these old pillars in the Cage pit; is there any coal to be got out of it? A. It would be more like picking the flesh off of a skeleton. There were no pillars drawn out down the slant. They stand firm.

Q. The pillars to the rise of the railway level in the Cage pit and between the Cage pit and the big brake, are there any pillars in there worth working, above the main level? A. There is considerable coal there, but the idea comes in here men cannot work without fresh air, and to bring air in to supply those men what effect would it have on the upper seam.

Q. I am asking you, from a statistical point of view, are they large enough and numerous enough, provided they could get out, to pay? A. It could not be done in a remunerative way.

Q. What sized pillars did you leave in there? A. Very little more was left in than what was taken out.

Q. Was more left than taken out? A. A little. The bords were from 15 to 18 feet, crosseut sometimes 2 and 3 chains.

Q. What was the condition of the pillars in the western section before robbing them? A. They were standing about two years. The percentage of slack was large. Worked only 7 or 8 feet high. Working in the rooms 12 feet high. They left a piece on the top of the pillars.

Q. After you found this fire at the bottom of the Cage pit you closed up the Cage pit and commenced putting gas in? A. Yes.

Q. How long did you keep that up? A. About a month, perhaps, or more.

Q. After you stopped putting it in did you try to open it again? A. No.

Q. How long did you let it stand? A. After a while the fire was threatening to come up. It was not effectual. Then we filled the shaft with ashes and let it stand. We filled it up above the door heads. Then we did not get in until prior to the explosion in 1887.

Q. Can you tell me why you did not attempt to get into the seam before that? A. We started to explore after that for coal; previous to that the third seam was not known, and we looked around for coal and we dropped on the third seam, and by Mr. Poole's permission we got 5,000 ton off his area, until we got opened out on the third seam on our own area. The third seam varies. We got it first near the Cage pit 7 feet 9 inches; now it is 12 feet. I was acting under Mr. Rutherford; he told me to explore for coal and I went to work. I did not know that the third seam was in existence before; we had gone up the brook, and saw some burnt material alongside there, and we considered that there must be coal not far off; before noon I saw six feet of coal. Next morning Mr. Poole came to me and he said he thought it was 2½ feet seam and it turned out 7 feet 9 inches. When it was found that it was of value the plant was shifted west. We could not get a slope there without getting on to the Acadia Coal Co.'s property, and the order was then to open out that new work and leave the Cage pit standing.

Q. Was it because your efforts were concentrated on the third seam that you had no inclination to devote any effort to the Cage pit? A. There was an effort made at the fan shaft of the Foord pit during the time we were opening the slopes out yonder, at the same time that I was opening the slopes.

WEDNESDAY, May 15th, 1895.

Present—Mr. Gilpin, Mr. Mitchell, and Mr. Madden.

ISAAC CONWAY—Called and testified as follows:—I began to work at the Albion Mines about 1854 or 1855. I began as a boy. Mr. Clish employed me first in the top pit. The top pit out back of the mines. The top pit of the Dalhousie. Not very long in that pit. I did not know anything about the main levels of that pit. I was a boy at that age and did not take very much interest. I think the coal was worked in the Dalhousie down as far as No. 9 landing, which is pretty well gutted out. Some of the coal was drove under what we call an umbrella roof; there were two feet of bad coal left and we worked about 18 or 19 feet underneath that and the top seam was worked 9 feet 3 inches to 10 feet. We did not drive the workings underneath the same, as in the bords above. The men at that time tried to deceive the bosses; the men would rap on the high side instead of the lower side, in order to deceive them in order to have a good soft snap.

Q. Were those workings out of the bottom coal, was it general over all this district, above the level of the Dalhousie down to No. 9? A. Yes, down to No. 9 it was; the bottom coal was pretty nearly all worked out. John Patrick said that some of the miners told him that the mine was going to crush. He let it crush. It was not long after that until she did crush. I do not know very much of the workings below No. 9 landing. I have been down as far as No. 5. I know the slants connected with the Foord pit. There was one pit sunk from the surface right through the Dalhousie to the Cage pit, and I have been at the side of it. They did not drive it underneath the bottom of the main shaft of the Dalhousie, as far as I know. I only went there and just looked down. I was trapping, and looked over. It was sunk into the Cage pit. There is a tunnel which goes into the Cage pit.

Q. The tunnel from the Cage pit, does that go out to the Dalhousie winding shaft? A. It is either the winding shaft of the Dalhousie or the other one, where the water came through from the Dalhousie into the Cage pit, and used to hoist the water from the Cage pit. I have cleaned the drift out myself.

Q. Do you know anything yourself personally about any connections between the Dalhousie and the old By pit to the east? A. If you show me the plan I think I can. I used to drive down there at the landing No. 9. The back slope of the plan is not correct.

Q. What was their idea in having that back slope? A. To have air for here.

Q. Was there any connection between the Dalhousie workings and the By pit workings, at the Dalhousie pit bottom? A. Yes; there used to be a road where they used to take in the horses. This back slope is not indicated on the plan. (Mr. Conway submits that there was a connection between the top railroad board of the By pit workings and the board on the east side of the Dalhousie slant, although it is not so marked on the plan.)

Q. Was there any connection further down to the dip. A. Yes; one below No. 8, on the right hand. I drove there right into the old By pit workings. I was a boy, and there was a gate there. This place here we supposed to be drove through. I have been there and saw where the gate was up, but did not go through. These places were driven through into the top coal. I do not know who drove them. I was there driving for the men.

Q. Do you know of any connection with the old Store pit from the Dalhousie pit? A. Yes. The south side of the Dalhousie pit is wholly clean through. We used to run through there for a mile or a mile and a half—it used to run clean through. I used to see a couple of dead horses lying here. The old dead horses were in the Store pit workings.

Q. Was there any connection lower down with the Dalhousie?

Q. I see apparently a connection marked there—do you know

anything about that? A. No. I could not say about that. Do not know when I left the Dalhousie pit. From the Dalhousie I went to the Cage pit, and from there to the Foord pit. In the Cage pit I was both driving and cutting coal. Did shift work considerably. Held brakes. Held brakes for 2 years there.

Q. Do you know anything of this back balance which was driven in past the big break north of the railway level? A. There were 2 or 3. The first balance I knew, which was laid in the Cage pit, they hooked the chain on a box and took the box around a turn. It was afterwards done away with and cages were made.

Q. Did you work in any of these back balances? A. I have been in there. I worked one. Loaded in there a little while.

Q. Were you in the Cage pit the time they built off that part of the Cage pit? A. No. I was not there when they built it off.

Q. Then personally you do not know much about that part of the Cage pit, more especially with regard to taking those pillars out? A. I have been all through it.

Q. Had they any trouble with the pillars while they were there? A. Any one man could dig almost as much coal as two men could load. I never saw the stoppings, but I have an idea where they are. If I was down in the mine I could go to them.

Q. Do you know anything about that part of the Cage pit that lies between the break and the pit above the railway level? A. Yes. I drove from the top of the surface to No. 5—I drove from the top of the surface to the shaft bottom.

Q. That is in the workings outside? Yes, sir. There are two big breaks. The top break should be in two chains. I think it is too close there (as indicated on plan). McNaughton's hole was a hole to the surface 10 or 12 ft. up. It fell through, and they made a short way out. The top was all gutted up—the coal would not be much good until you came to the head of the top break going out. All these top workings were gutted out. From the head of the inside of the big break they are all good pillars. From the second balance in the big break they made, the miners, \$80 a month.

Q. What was the average to which the coal was worked outside of the two breaks? A. Well, there were different heights—some 15 ft., 12 ft., 10 ft., and so on. Different heights.

Q. What was the bottom coal like? A. They did not go anything below the free coal. The bottom coal was good—the very best. They could not go anything below the free coal. Anything that was inferior was up above at the top.

Q. There was some coal left on the bottom of the Cage pit? A. No. Not that I know of. (The seam.) There was more to the dip—16 feet in some places. From No. 7 landing going south was 16 ft. In the Foord pit there were some places 21 ft.

Q. What sort of roof was there there? A. Fine roof.

Q. How long were the pillars standing? Years and years.

Q. How many? A. I suppose 10 years as far as I know.

Q. You have known the coal worked out and the roof standing for over ten years? A. Yes. Not a chip off of it. The last time I was in the Cage pit the roof was as solid as a bell. The roof was solid; we fired it. I think there would be some way to get at those pillars.

Q. How would you go about it? A. When you get everything walled off.

Q. What do you mean by walling everything? A. Walling off these old workings which are now in connection with the fire. I do not think there is any fire in the crop alongside of the big break.

Q. Do you think there is sufficient coal in those pillars to warrant an expenditure in trying to get them out? A. Yes. If I had \$100,000 I would put it down that I would get these pillars. Whenever a lawyer gives you advice he gets a charge, and I have a charge too.

Q. But this is friendly business? A. It is all friendly, but it is not friendly when it comes to the pocket.

Q. What is the distance between here and there? A. One mile and a quarter.

Q. Would the pillars be good towards the dip? A. All good from the head of the inside big break out to the pit bottom and from the crop to the dip. There were no pillars taken out in all this section from the crop to the dip and from the big break to the pit bottom.

Q. After you got through at the Foord pit did you go back to the Cage pit? A. I worked at the Foord pit and then went to the Cage pit again.

Q. Then you went back to the Cage pit again? Yes.

Q. Tell us the last time, about the last time, you worked in the Cage pit? A. I could not tell you the date. I worked in the Foord pit before the explosion. The Cage pit has not been worked for 4 or 5 years. I started to drive a slope in the Cage pit. The furnace shaft should be on the right hand side going down (at Roy's Slope.) We started to drive that slope from 2 to 3 months before the explosion in the third seam to make a connection with the travelling slope—8 to 9 feet high; we got three bords of old Kerr's workings there when we started there. These workings were in the coal above the furnace shaft in the free coal; the seam was there; these were workings Kerr drove there in olden times.

Q. Where did you stop driving that slope? A. We were only driving to the furnace pit from the surface pit to the furnace on a contract.

Q. Were you troubled with damp? We had good air. The cupola was open at the back of the Cage pit. We saw no sign of gas in driving that slope. We worked with a naked light. But I imagine that there were fires in those old workings. It takes a long while to kindle up.

Q. You say that place was drawing in when you left it? Yes, I would say about forty or fifty thousand cubic feet of air a minute. The air on the side next to the back was all right. The air coming the other way seemed to go down into the Cage pit. When we made a connection into this pit it came quick. I saw steam rolling out like clouds.

Q. Was there any trouble in building off that, as far as you went? A. No; one stopping would do it.

Q. Building off from the old workings? One stopping would do it.

Q. Suppose you wanted to get into the Cage pit by that slope, would there be any trouble in building off the place you cut through? A. No trouble at all. The old workings on the left hand side of Roy's slope were not connected with the Cage pit.

Q. How would you open the Cage pit again? A. I have got to have some money for this information.

JOHN DOUGLAS said he had been down with an exploration party into the Cage pit. The stoppings were all black stone and lime. In the main bord on the railway the third from the big brake was a stopping. (It was leaking.) I have known of people going from the Cage pit seam into the third seam. The thickness of coal was from 9 to 10 feet, we were taking out there. Roof is fairly good.

JOHN DUNBAR was duly called and testified as follows:

Q. Did you work in the By pit at one time—the old By pit? A. I worked there as a lad.

Q. Have you any recollections of the workings yourself from your recollections as a boy? A. I cannot remember anything very much about the old By pit.

Q. You do not know anything of the barrier between the By pit and the Old Store pit? A. I do not think I do.

Q. Where did you work after you left that pit? A. I went to work in the Dalhousie pit.

Q. Were you long in the Dalhousie pit? A. I might have worked upwards of 5 or 7 years in the Dalhousie pit.

Q. What were you doing? A. I worked as a loader and as a coal cutter.

Q. Conway spoke of what they called a back slant in the Dalhousie, do you remember that? A. There were two slants.

Q. What was the name of the one the engine was on? A. The Engine Plane.

Q. Where was the other? A. The first part of the slant was to the east of the Engine Plane; afterwards it was to the west. I cannot say the distance down.

Q. Do you know whether that dip slant or plane that went to the east ran from the pit bottom, or did it join the Engine Plane? A. It ran to the shaft level.

Q. Are you familiar with the plan of the Dalhousie pit? A. No. Horses took the coal from these bords on the levels and they were brought to the engine plane. Know nothing about that level. (The one to the east.)

Q. Do you know of any connection between that barrier in the Dalhousie and the By pit workings? A. There were some connections made.

Q. Were you ever in them? A. Never. I was never in where the connection was made.

Q. To the rise of the Dalhousie pit about the top pit was there any connection with the old Store pit mines? A. It is said there was.

Q. How much of the Dalhousie pit was worked out to the full height of the coal? A. I cannot say as to the quantity of coal taken out. There were a number of coal bords worked in the Dalhousie pit, but to what extent I do not recollect.

Q. Were you ever in the Foster pit? A. Yes. I have been in the Foster pit.

Q. Were you in the Foster pit when the hole was made through to the Dalhousie pit? A. Yes. I have been to the place several times.

Q. What bord of the Foster pit was it that came through into the Dalhousie pit? A. The bord below the shaft level was the first that holed it.

Q. Did they hole twice? A. There were two holes in it, in the Dalhousie from the Foster that I know of.

Q. Do you know anything of the stoppings where the hole was made through into the Foster pit from the Dalhousie? A. There was a brick stopping in it. There were brick stoppings in the two holes that went through.

Q. Was it only a brick stopping? A. That is all I have seen.

Q. Was there any large stone and slack stoppings put in in any one of those connections? A. They went from the Foster pit bottom easterly in the 9 ft. 3 in. seam, but that gateway passed

under these bords that were driven in the 9 ft. 3 in. coal (not on plan), and put holes into the Dalhousie for ventilation—from the Dalhousie into the Foster pit workings. The fire originated in the stone and slack stoppings. When this crushed the whole was connected. The stoppings were outside of the crush, and these bords were open at that time, and they put holes through to ventilate their gateways. The fire was discovered on the Foster side of the stoppings. There was fire on the inner side of the stone wall when the wall was pulled down. They pulled the wall down to get to the fire.

Q. That fire was the direct cause of the abandoning of the Foster pit? A. That was the cause.

Q. You cut coal in the Cage pit after a while? A. I cut coal in the Cage pit for a very short time. I was in the Foord pit when the Foster pit fire occurred.

Q. You were in the Foord pit till the explosion? A. Yes.

Q. Then you do not know anything about the Cage pit? A. Not a great deal. I know nothing of the dip work.

Q. What part of the Cage pit do you know? A. I worked considerable to the rise of the shaft levels in the Cage pit.

Q. In past the big brakes? A. In past the big brakes.

Q. Do you remember those back balances that were worked on the railway level? A. Yes. I remember them.

Q. Did you work in them? I worked as a shift man at that time.

Q. And you do not know anything about the pillars taken out there? A. Not a great deal, any more than that they were taken out.

Q. Why did they stop working those pillars? A. They lost their shaft level.

Q. What do you mean? A. There was a local crush come on the shaft level and cut them off. The shaft level crushed. When these were taken out they lost their level.

Q. Did they ever have any fire in that part of the Cage pit? A. It was generally supposed there was fire there.

Q. How long was it after they stopped taking out pillars on the railway level before they built it off? A. I cannot remember dates.

Q. Would I be correct in understanding you to say that after they had stopped taking pillars out on the railway level bords that they continued working in the lift above for some time? A. They did continue the work to the rise, then they lost the level at the head of the big break, taking those out, and that drove them to the other brake outside higher up.

Q. From the time they lost the pit level by a fall to the time they lost the level at the top of the big break by a fall would be an interval of one year? A. I would say so and more. I remember you taking the temperature at 90 degrees at the head of one of those balances.

Q. Then it would be two years after this place was abandoned on account of the fall that they found the fire? A. I would not say the number of years. The reason they stopped workings was this crush in the main level drove them to the upper level, then they lost their big brake level; then they went out to the balance. There was considerable robbing to the east of the Big break, but just where I cannot locate. John Fillis is one of the men who robbed the pillars to the east of the Big brake. I had not a great deal to do with building off the fire. I have seen a few of the stoppings and helped to put in some brattice to build them.

Q. What was the nature of the stoppings? A. Black stone—splint band.

Q. How thick were those stoppings? A. I could not tell you.

Q. Did you spend most of your time in the Cage pit? A. I worked a number of years there.

Q. What were the pillars like in the Cage pit? A. Pretty fair pillars.

Q. How thick? A. I suppose they would range all the way from 18 feet to 30 feet above the shaft levels.

Q. Do the cross cuts; does it appear to you that they are in their proper position? A. I would not like to say; they were more or less there.

Q. Do you think those pillars are in good form? A. Very badly arranged. I would not like to say that amount of coal is in the pillars as represented on the plan. I would not like to say whether they are all standing.

Q. Have you any personal knowledge of the upper workings in the upper part of the Cage pit from the upper big brake out in along past the Mouse's Hole to the travelling road? A. I recollect seeing two men on a scaffold knock holes through a pillar in a couple of blows. I saw them with a half dozen blows knock a head through the pillar.

Q. Do you think those pillars are worth expending money on to get them? A. You will find if anybody gets in there the pillars are not just as shewn here. I do not think the plan is correct. I am not referring generally to the plan but to the state of the pillars in that part of the pit in which I knew they were robbed. From what I have seen of these pillars I do not think that they are worth going after. I am speaking of the workings above the level of the pit—the workings below the level I do not know anything about at all. It would not pay to go in for the pillars to the rise in m

opinion. The measurement of the whole area is from 9 to 12 chains.

Q. Why do you think they are not worth working? A. My opinion is that they are so badly arranged, if you take any out there is not enough left to carry the load; they are small and irregular in extent. I do not consider that they would average 15 feet. I would not undertake to take them out with safety and regularity. I would expect a crush or creep and could not keep my faces. The general condition would not allow to work regularly with safety to the men.

Q. Were there many accidents occurred in taking those pillars out? A. Not to my knowledge.

Q. What would be the difference between these and those (pointing to the pillars inside of the big brake and those outside of the big brake)? A. These were square work (on outside.) Those outside are gate way work. The coal does not improve in thin pillars.

I did not express an opinion about the pillars being got out safely except provided you got in to the dip, but not to the rise.

Q. If you had had a crush just inside of the big brake it would have affected your incline? A. It would have taken that from us.

Q. If you were going to use that incline afterwards, would you take those pillars out? A. Not if I wanted to work the incline.

Q. Supposing there was a demand for coal abroad, what would you undertake per ton to take out this coal (referring to the pillars)? A. I would not undertake it at any price.

Q. Don't you think there is as much coal in there now as was taken out? No; not there. I suppose they range from one foot to 30 feet, but I have seen there are more thin ones than thick ones. I know pillars have been sliced, driven through and robbed, and a large amount of this work to the east of the big brake have been sliced and only mere stumps left standing to carry the load. John Fillis and Menzies, in Hall's time, were put in there and the pillars were sliced. When they brought that coal out it went down a small brake to the east of the long brake, and it was brought on the level to the east of this brake. For quite a distance to the east of this brake was robbed and left on stumps. They sliced and took all they possibly could take without bringing the roof down.

STELLARTON, May 16th, 1895.

Present—Messrs. Gilpin, Mitchell, Madden and Dick.

JAMES WATSON—I started to work here about the year 1841. There have been a good many fires since then. I did not keep an account of them. I am not an almanac.

Q. Then you came here just about the time the By pit was bottomed? A. Came in the the year 1839.

Q. What was the first pit you worked in? A. In the No. 4. That is the old one down here (on plan.)

Q. Did you come here as a boy? A. As a boy, 7 years old.

Q. They did not put you in the pit at that age? A. I was in the pit. I was 9 years old when I went to work. They went pretty young those days.

Q. What are the first workings here you have any recollection of? A. I have not done much of anything, merely sinking and shaft work, for 30 years.

Q. Did you ever cut coal? A. Yes. I cut coal in the whole of the pits here—the Old By pit, the Foord pit, the Cage pit. I never cut coal in the Foster pit; I helped to sink it though.

Q. What part of the Old By pit did you cut coal in? A. I drove the main slant in the north side for two or three years. I drove the south slant for two years.

Q. Did they drive the north slant first? Yes. The north slant was the first in the Old By pit.

Q. Who started that; who were the bosses—Mr. Scott? A. Mr. Scott; Jim Hall. It was in Redpath's time I took the slant. John Dick had charge of the Old By pit then. It was Redpath on the south side.

Q. When was the explosion in the north slant of the Old By pit. The fire occurred while you were there? A. I was out of the slant at the time of the explosion. I was driving a place from No. 2 to the top pit, and when we got through into the top pit we started to go up to the Store pit.

Q. Did they drive that travelling way up to the crop? A. They came to the Store pit bottom to the old furnace.

Q. Do you know anything of the barrier between the old By pit and the Store pit? A. No; I do not know anything about that. There is a block of coal down there between the old Top pit and the old Store pit.

Q. Did they make any opening in that? A. There are no openings I know of. There is a place they had a head through and plugged it up with wood; there was a tap in it and they used to let the water off now and then. I have been at the tap letting it off and on. It used to run down the travelling way.

Q. Didn't that water go down on the south side of the old By pit? A. It went down the travelling road.

Q. The travelling road was on the west side? A. Yes, it was on the west, and the water ran down into the lodgment.

Q. Some person told us of a crush in the old By pit—there

was a crush on the railway west of the pit—how far west did this crush extend? A. I could not tell. Down there at the crossing there were cracks about 3 feet wide; that was in Mr. Poole's time, down at the cross roads.

Q. Was there a pit at one time near the Cross roads? A. I do not remember. I have heard it said often there was one, but I do not remember.

Q. The crush in the old By pit occurred a good while after you went into the pits? A. A good while. I do not remember the year.

Q. What made Mr. Scott drive those dip slants? A. There was nothing else to go at only them.

Q. When Mr. Scott found the mines were crushed why didn't he work the bottom coal? A. The crush was before his time.

Q. When he (Scott) came here and took charge of the old By pit I understand that he started those two slants, one to the south and one to the north; what is the reason he did not work the bottom coal? A. I suppose the top was the best. The bottom is not of much account. There is a place they worked not of much account; they stopped it, as it is no good. They could not find a market for it. It is a kind of greyish looking. There is a place that goes between the old By pit to the Dalhousie pit, and there was lots of coal broke up in the place up there. I drove that level for a time myself. It went right through.

Q. The bottom coal got better as you went to the west? A. Yes; better to the west.

Q. And when you got into the western part of the old By pit out towards Mount Pleasant, then you worked some of the old By pit coal to its full height? A. Yes; it was worked very high there. I suppose there are places 18 feet or 20 feet high in the open cast in the Dalhousie pit.

Q. When I asked you why Mr. Scott worked the dip slants you said the top coal was the best; you went on afterwards and told me that your knowledge was that the bottom coal was not as good as the top coal, and then you said that the bottom coal got better as you went to the west. I thought I heard somewhere that in the western part of the old By pit workings, out, say, where that house was that was burnt, where the fire afterwards came up, that there was some high coal worked out in the old By pit? A. Yes, there is pretty high coal worked there; open cast work. The old Store workings fired first.

Q. There was no coal worked in the Store pits in that direction? A. Certainly, from the shaft back.

Q. They worked it back pretty nearly to the brook where Mitchell used to live, but they did not work thick coal in that, did they? Certainly. They were still working when it fell in.

Q. Did you ever work any coal in the Dalhousie pit where they worked it to the full height? A. I have open casted where it was worked to the top before.

Q. What part of the Dalhousie pit? A. I worked to the mine bord, open casted.

Q. That is the mine bord from the Dalhousie pit to the main pit, going west? A. Yes, and I worked it in the south side of the river—the other side.

Q. What part of the south side? A. This is the old Store workings, where I open casted.

Q. That would be to the rise? A. To the rise.

Q. In front of Tom Stewart's place? A. Yes.

Q. Just before you come to the bridges? A. Yes.

Q. Where you did that was in the old Store workings. Yes.

Q. Did you ever work in the slants in the Dalhousie pit? A. No.

Q. Did you ever work in the west end of the old By pit up toward the Dalhousie. Did you ever get any coal in there? A. No.

Q. You commenced working here in 1841? A. 1841.

What time were the old Store pits abandoned? A. I believe it was in 1839 that they took fire. It was the year we came to the country. I was only a boy then. I think it was that time.

Q. Do you know enough about the Albion Mines to tell us in what pits and what part of the different pits they worked the full thickness of the coal? A. The Dalhousie is the main one, as far as I know, that worked the full thickness.

Q. Did they work any in the old By pit, coming this way? A. The old By pit south is all pretty much open casted. I do not know whether they went deep down in it, but I do not know that they went terrible deep, but there is a great deal of ground run over. They open casted there for a long time. I do not know how deep they went. I know they went over a good bit of ground, but I do not know how much they took out.

Q. Could you ever at any time when you were working here get through from the old Store pit to the Dalhousie? A. I have been in the old Store pit. As far as I was back in the Store pit was as far as John Douglass'. I used to go every second or third Saturday with my father for company with him.

Q. Do you recollect how many connections there were between the Store pit and the Dalhousie pit, up toward the Top pit of the Dalhousie? A. I would hardly tell you; it is such a long time I forget.

Q. You know there were? A. Yes; there were connections.

Q. You could go in that old mine mouth and either go into the Dalhousie pit or the old Store pit? A. Yes. You had to go into the old Store pits before you got into the Dalhousie.

Q. You say you do not know anything about the slants in the Dalhousie? A. No. I never worked a great deal in it. I worked very little in it or the Cage pit. I have not worked in the bord since Hudson came here.

Q. What did you do in the Cage pit? A. I worked in the bord there a while. I think Lennon and I worked six months in the top level. I never worked much in it.

Q. You were not in the Cage pit at the time they built it off? A. No, but I used to go to the stoppings that were built off sometime.

Q. To see if they were all right? A. Sometimes.

Q. Then you were a shiftman in the Cage pit? A. No. To see if the water level was clear. I would take a shovel, and if I saw anything cover it up.

Q. Do you remember anything about those stoppings, did you see them often? A. Yes. They were all right when we went around.

Q. What were the stoppings? A. Black stone—coal stone; on the main railroad was brick.

Q. Do you remember how thick they made those stoppings? A. No; but I remember how thick we made one ourselves, when it fell. It was ten feet thick at the bottom; we took it up too high. We put the mortar on the inside and filled it full of slack. It was air tight. Mr. Yorke sent us in to examine these places. He is dead.

Q. Do you remember where the stoppings were above the Big brake? A. These were above the Big brake. The stoppings were put up all inside of the brake when I saw them.

Q. After you got to the top of the brake there was a road to the rise? A. Yes.

Q. Where were the stoppings along that travelling road? A. It was all stopped.

Q. Was that travelling road stopped? A. No; you could get out and in the last time I was there. The stoppings were on the right hand side. The furnace was burning when we used to go there. The air went up that travelling way.

Q. In that travelling way were any pillars taken out on the left hand side? A. No pillars that I saw. They were large pillars.

Q. Did you ever travel any other part of the Cage pit? A. I was up and down the slant. We were sent to do an odd job.

That was the pump in the Gin slant. We used to go sometimes back and forward; one horse pump.

Q. You were at the sinking of the Foord pit? A. Not exactly the Foord pit. I was in the pumping pit all the time. I was from the first to the last till I left.

Q. You had not much to do with the working of the Foord pit? A. Nothing.

Q. You were only in the pump shaft? A. That was all.

Still after the Foord pit was closed where were you? A. I was back and forward between there and the McGregor slopes.

Q. Did you go back to the Foord pit when they fitted her up again? A. Yes. I was there until they were 3 feet below the sheets.

Q. Were you in the Foord pit, in the workings, at the time they were reopening it, this last time? A. No; we were in as far as we could get. We built a raft and got away in as far as we could get. Mr. Rutherford and I were in.

Q. What year would it be that you were engaged in the pump shaft when they re-opened the Foord pit? A. I cannot remember. I was around there all the time back and forward. I suppose it would be 1884 or 1885.

Q. How long did it take to get the water out? A. I did not keep the date (3 years.)

Q. How long was she dry before that time, before they let the water in? A. I could not tell you. There was a good deal of work to do after I left.

Q. What did you do to the Foord pit shaft, was there any cribbing broken? A. A good deal broken. Lots down. It was like a big wilderness.

Q. Did you see any fire or heat when you put in the cribbing? A. No; quite cool. We went in on a raft.

Q. How high up? A. A hole in the roof that was in the seam. The cribbing, I guess, was blowed out.

Q. Was it solid behind where it blew out or was it loose? A. No; it was open.

Q. How far up did it run from the shaft (the cribbing)? A. 200 feet from the bottom. The cribbing was not all out. Rails were put in to form a roof. Before we got the next boom the whole thing went down; too much weight.

Q. You say there was a connection between the Dalhousie and the old By pit to the dip? Yes.

Q. How many places are through? A. Two. There is a place away down the slant where the water went through. There is one where the horses went through, between No. 2 and the old

By pit, and Hugh Maxwell and Angus Maxwell drove a level from the By pit right in the bottom, then sunk the pit down. This mine I am telling you came in between, that is where they worked the big coal.

Q. How did they sink the Foster pit down, did you help? A. Yes. The last time I was in the Foster pit was the time of the fire. I was never in until after that, so I know nothing about it.

Q. Where did that fire come from? A. From the Dalhousie pit. The seam appeared to be 9 feet 3 inches, with an umbrella roof, as they call it.

Q. Did you see any fire in the Cage pit, where you used to travel to those stoppings? A. I never saw any fire in the Cage pit.

Q. And the only fire you did see was the fire in the Foster pit? A. I did see it and felt it. I got right home dead. I was unconscious that night and the next day.

Q. You said you were not in the Dalhousie? A. I never worked much in the Dalhousie, except at the open cast.

Q. You never were much about the shafts there? A. No. The time they knocked the Dalhousie off we were driving a tunnel from about half way down the slant. It was a side landing on the south side. We were driving a tunnel to catch the Cage pit coal.

Q. They drove one tunnel from the Carpenter pit? The Carpenter pit was sunk down to the Cage pit. We were driving this tunnel so that they could meet us. Then I think there was another shaft in the level. We never got through; they stopped us, Mr. Hudson. I suppose he saw it was crumbling down and he stopped it. There is no solid place to work in the Cage pit. The further you come this way the worse you get.

Q. Would not the pillars pay? A. It might. Too many pillars taken out might spoil the thing. This roof is not like your mine in Cape Breton. A shot might take the whole thing down.

Q. Are the pillars in the Cage pit worth going for? A. I do not know anything about the pillars. There are good pillars in the Foord pit and that don't hold it. I saw them going 9 feet wide. I saw a man in a place 9 feet wide and he got closed in. In my young days they used to leave 2 feet in the roof in the old By pit.

Q. How much did they leave on the roof in the Foord pit? A. They used to leave a little. I could not tell you. I did not work much in the Foord pit cutting coal. They left plenty in the bottom. They would take 12 feet and leave the rest.

Q. What width did they drive the balances in the Foord pit? A. From 9 feet to 15 feet; the large balances 15 feet to 18 feet.

Q. What was the thickness of the pillars? A. Good thick pillars there. The pillars are all pretty well robbed on the south

side. I think it is pretty well closed up on the south side, on the side next to the river. I do not think there are many pillars left in it.

Q. Did't they work the seam on the north side? A. Yes.

Q. Do you think it is standing on the north side? A. It is pretty hard to say.

Q. Do you know if the intervalle fell through? A. I do not know. I know they had to make a drain to take the water from the big pond.

Q. What thickness do you think the pillars are in the Foord pit? A. From 20 feet to 60 feet thick.

Q. How long between the crosscuts? A. I could not tell you. I could not tell you how far they worked the balances apart. They worked 12 feet and 13 feet of the coal in the Foord pit.

Q. You are not sure of the intervalle falling in? A. No. They always allowed it went down. They allowed that the government road went down; I heard it talked about. The section man said he had to make it up. I could not say. I could not say if it would come that far up.

Q. What would be the depth there by the public road (the amount of cover)? A. 900 feet.

Q. Where the bridge crosses? A. Yes.

JOHN FERGUSON—Called and testified as follows:

I worked in the Cage pit. When I started in the Cage pit it was after the explosion, the time that George Redpath was lost, in 1858 or sometime thereabouts. That is not the time I started, that is the time she started. I worked in the old By pit before she blasted; then they started the Dalhousie with a double shift, and and when they stopped the double shift I worked in the Cage pit. I was a trapper boy. I cut coal in the large pit. I cut coal in different parts of the Cage pit. I cut coal in that balance bordering on to the bad coal.

Q. The faces in the west end of the Cage pit were stopped on account of poor coal? A. I guessed it was on account of poor coal or bad coal.

Q. After they stopped driving those balances did you take out any of those pillars there (Cage pit.) A. Yes; I worked at the pillars away to the rise in the Cage pit.

Q. How many balances did they work to the rise there, do you remember? A. Where I drove the pillars last was outside the long balance. It was on the side of the big brake, inside of the top brake. The last pillars I drew in the Cage pit came out of the big brake level, where they had the big step.

Q. Was there a faule just outside the big brake? A. It was in a piece from the big brake. I drew pillars outside of that on the top brake. It was just inside of the top brake. There were pillars drew up there after I left.

Q. That lift at the top of the brake, is marked as taken out, from the face where you were working, is it correct as being pretty well taken out towards the top of the brake? A. I think so as far as I can recollect. I think them pillars are taken out back pretty near to what is called the furnace brake. The blue berry brake.

Q. Were the pillars drawn on the pit main level inside where the stoppings were afterwards built off? A. There were no pillars down.

Q. You never drew any other pillars in the Cage pit in any other part? A. Those are the only pillars I worked at.

Q. Did you ever rob any other pillars? A. No.

Q. How thick would those pillars be that you drew? A. Some 18 feet, 20 feet, and one 27 feet that was down on the shaft level.

Q. These pillars—how much did you take out in the thickness of the seam—what height did you take? A. I could not say how long a piece. There was a little band 6 or 8 inches and that was left on the roof.

Q. What was the thickness of the workings in the bords? A. I do not think it was 9 feet.

Q. You did not take out the full thickness in the pillars? A. No, not in the pillars, there were 6 to 8 inches left on the pillars.

Q. You were one of the last men to work at the pillars getting them out? A. They worked quite a while after.

Q. Were they all good pillars? A. Some a little better than others. The last pillar I think was started was 34 feet wide. I think most of the coal was taken out where they drew the pillars. I worked in the bords in the Cage pit. Most of the slack was from the free coal in the mine, that was in the pillars. I could not tell you how long the pillars had been standing before we took them out. We were drawing the pillars in 1872 up there—January. Was not engaged at any other workings in the Cage pit.

Q. Do you know anything about the other workings outside of the Big brake, above the main level? A. When I was a boy I went around with the sulphur man in the Cage pit, after the old By pit blasted. That is what they call the night boss, too. We went through twice a week through the old works. We did not find many fallings in the old works. Once a week we went into the south side of the Cage pit in the shaft level. We used to go through the main works, through the main air courses.

Q. Then you went through a regular course and left all the rest? A. They were pretty well all connected with the main course.

Q. You would not know how it was inside of that circle? A. There are some old works there I never saw. I went around the old works. The Cage pit was a small mine at the time.

Q. When you were travelling around with the sulphur man were they taking pillars out in the old workings? A. No. It was standing idle then. I used to visit all the main workings on the north side. There were no pillars taken out then. There have been no pillars taken out since.

Q. Have you had any evidence that it was all stumps that was left there? A. Well, they are pretty big ones.

Q. Did you work in the Cage pit when this section was working? A. The pillars were not removed at that time.

Q. How long is it since you visited those workings? A. It lasted in June, 1861, and we worked in the summer in the Dalhousie pit, and I cannot say when we went to the Cage pit. Trapped in the Cage pit, I cannot say how long, until I was put on the night shift with Jim Russell. I was a boy with him. The pillars were all standing in 1877. To go and come to our work we used to go out the Third mine where the cupola is. Out the travelling road.

Q. How were the men paid for slicing the pillars? A. I could not say. I never saw it done. For the stone bench they got ten cents a box—it was sold to countrymen. *My impression is that all those pillars are standing there yet from the big brake. All to the south of the big brake.* I would not think the fire would eat the barrier. I think the barrier should be standing there now.

THURSDAY EVENING, May 16th, 1895.

Present—Messrs. Gilpin, Mitchell, Madden and Dick.

PETER McNAUGHTON—Called and duly testified as follows:

Q. When did you start working in the Cage pit cutting coal? A. 24 years ago. It is 23 years just past since I took the pillars out of that brake. I stopped drawing pillars in 1872. Now, we only took three cuts out of those long pillars. (The pillars in the top side of the level going west from the top of the top brake.) The last cut 40 feet 6 inches. The pillars were 20 feet 9 inches thick. We made three cuts. We took a cut 40 feet and left a stump 17 feet. The roof was good, and showed no signs of weakness. I know we could not work any longer for the white steam—at least it got too bad. No pillars were taken out on the inside, not to my knowledge. Those are the only pillars I drew in the top brake.

Q. How long did you work in the Cage pit after 1873? A. I never did much work after that. I went to the States after that and came back and went to the Foord pit. I only worked a month in the Gin slant.

Q. Do you know anything about that part of the Cage pit that was built off shortly after the damp drove you out? A. There was only one small hole there, but I do not know this of my own knowledge. When I was a boy I rambled through the old works. The stone buildings were burnt since the Foord pit explosion. They were there when I was a boy.

Q. Did you notice if those pillars were burnt where these walls had been? A. The pillars seemed to be coked in 5 or 6 inches. I was only a few minutes there. I was in with an exploration party with Mr. Douglass.

Q. Do you know anything about this barrier? A. No. When I travelled along the barrier the workings on the other side were not started.

THORBURNE, May 17th, 1895.

McBAIN SEAM.

The plan of the McBain seam is submitted to the commission, and the following explanations given:

Length of the main slope three thousand feet.

At the bottom the levels had been driven twelve chains on each side.

That at the 2500 feet level the levels had been driven to the west 46 chains, and to the east 25 chains, being bounded in that distance on the east by faults, and on the west this level was stopped at the time the pit closed.

Those pillars colored blue on the plan have been all taken out, and all the pillars have been practically removed in that way down to the 1900 feet level.

Eighty-two acres of the McBain seam lying between the basin and the 24 feet level, six feet thick, at the rate of 1500 tons to the foot equals 738,000 tons.

EXAMINATION OF WITNESSES.

Present—Messrs. Gilpin, Mitchell, Madden and Dick.

ALEXANDER W. REID—Called and testified as follows:

I worked in the McBain pit for 15 years. I was reported dead once.

Q. When did you begin to work in the McBain seam? A. Going on 19 years this fall; 18 years past; 19 years this fall. The McBain seam was started 22 years ago.

Q. Where did you work before you came to the McBain pit?
A. In the Acadia 8 years.

Q. Did you work in any of the old mines? A. No. I worked in the Drummond for two or three years.

Q. You came here and cut coal, did you? A. Yes.

Q. What part of the Vale did you begin working in? A. In the second level, what they call the pump level. The second lift. That is the depth the time I came.

Q. Who were the bosses the time you came? A. Greener and Turnbull were bosses.

Q. What work did you do on that level? A. I drove No. 1 bord.

Q. After that what did you do? A. I worked in the lift.

Q. Did you take any pillars? A. Not at that time. I did sometime after that.

Q. Then I suppose you went down to the next lift? A. Then I worked in the pump level and into the main until she stopped.

Q. After that where did you go? I worked on No. 2, west side, drawing a pillar on the pump level, right below No. 4, top bord.

Q. Do you know anything to what extent the pillars were taken out in those two levels you speak of? A. It was all pretty well drawn on them levels.

Q. Did they get the pillars out pretty clean? A. They drew the pillars pretty well out.

Q. Did they take the pillars on the shutes? A. They did not try many of them.

Q. Did you work further down? A. Yes.

Q. Did you work in on the 1,900 feet level? A. Yes. I drove a level on the east side, away in from the level, 130 feet in from the level, into the stone.

Q. What did you find when you went inside of the stone? A. Found coal.

Q. Was it good? A. The very best.

Q. What thickness? A. Seven feet; clean coal; better than when we came to the stone.

Q. How far did you drive in from the stop? A. I think there was somewhere about two sheets, 300 feet between the sheets, 600 feet. I am speaking of the fault on the east side. I do not know exactly the distance.

Q. Were you there when the level stopped going east? Not that lift. I went down sinking the next lift.

Q. Then you do not know if they got bad coal in there? A. There were just two drove in. That coal is all lying there yet. The coal was all standing to the rise of the 1,900 feet level. They made out to run it down to the next lift. It would be cheaper to take it out below than where they were.

Q. Did you draw any pillars on the 1,900 feet level? A. No.

Q. Do you know anything about the pillars? A. They drove some heads up.

Q. They split the pillars? A. No, robbed them.

Q. Did they leave much coal in the 1,900 feet pillars? A. She was kept pretty solid.

Q. How far did you drive those heads? A. 12 feet and 15 feet. The pillars were 30 feet. The original pillars had heads driven up through them of various widths, leaving blocks of coal of various sizes, but, in my opinion, one-half the coal in the pillars was taken out.

Q. Was that true of both sides of the slope on the 1,900 feet level? A. That is about true—the way they worked both sides.

Q. In all this work on the 1,900 feet, the 1,200 feet and the 600 feet levels, did they take out the railway and mine bord pillars? A. No; they were not touched, except the heads were driven 40 feet.

Q. What was the idea of leaving those pillars? A. They always left them for airways and returns, to keep the way clear to travel through.

Q. You say you left that level (the level) and went to drive to the dip? A. Yes.

Q. Whereabouts did you begin to drive there? A. At the foot of the slope.

Q. How far did you go? A. Between 500 and 600 feet.

Q. How was the coal there? A. Good.

Q. Was the dip and rise the same? A. Yes, quite regular.

Q. How thick was the coal there? A. Seven feet.

Q. Stoney? No.

Q. Did the gangways and levels start there again? A. Yes.

Q. Did you work there? A. Yes.

Q. Which one? A. Going to the east.

Q. How far did you go? A. A long distance.

Q. You have no idea of the distance? A. I cannot recollect.

Q. Were you working in the fault? A. Yes; the same fault we met above.

Q. The step? A. Yes. There was 21 feet of stone; between 21 and 22.

Q. Did you meet any other fault after you passed that step?
A. After we drove in there was a good piece of coal. There is 300 feet between the steps. After the 300 feet step was passed we struck another step.

Q. Did it resemble the first one? A. No, not much difference; the other one we struck 40 feet.

Q. After you struck the second step you went through it? A. Yes.

Q. Did you continue it? Yes.

Q. Did you find good coal? Yes.

Q. How far did you continue? I do not recollect the distance. I did not go through the third step.

Q. Did you ever go further down? Yes.

Q. Was there another lift started? Yes.

Q. Do you know the length of that lift? Yes.

Q. How far did you go? 700 feet.

Q. How did you find the coal there? Still better.

Q. Was the level started off from that? Yes, east and west.

Q. How was the coal? Good.

Q. How far did you go to strike the step? We struck no step there. The levels were drove 400 feet on each side—between 400 and 600 feet east and west.

Q. Did you ever do any work on the west side on the 2400 feet level on the face? No, sir. I was shot firer in there; but I travelled it every day two or three times.

Q. How was the coal at the west face of the 2400 feet level?
A. Good coal.

Q. Did it thin there? A. It was 6 feet 3 inches—good coal.

Q. Were they working it at the time they abandoned the pit?
A. Yes, sir; they were pushing the level.

Q. What was the cause of the abandoning of the pit? A. It took fire.

Q. Do you know anything about that fire? A. No. I do not know anything more than that she took fire. I do not know how she took fire; could not tell you anything about that.

Q. Where did the pit take fire? Up at the pump level.

Q. How far was that from the surface? Between 800 and 900 feet.

Q. Did the fire do much damage before the water came in?
A. It did not do much damage. She was closed up.

Q. How was the timber in the roof? A. Pretty dry in about the slope. There were steam pipes coming down there and it would not take much to start a fire; friction might do it.

Q. Do you know whether they had open lights? A. The men at the pumps had open lights. The fires did not take place where the steam pumps were. (There were 50 square chains of coal between the two steps, equal to 50,000 tons or 5 acres.)

Q. Can you account for the change of course here? She twisted there; she took a turn.

Q. What was the roof like? Fair.

Q. Better than in the lifts above? Pretty fair.

Q. Is the roof better there where they proposed to put down that slope than where it is here—(indicating on plan)? A. The rock is much stronger in the proposed new slope, (between the slope and the proposed new slope.) The coal was over 7 feet in the west; it was not more than between 5 and 6 feet in the east side.

Q. Is there much coal in that pit? A. Our children will not see it worked out, if it is started.

Q. The way it was working, how long would it take to work it out? A. It would not be worked out if I was 90 years of age; 200 acres are worked. The roof is a little crumbly. It gives us good warning.

Q. Do you remember what time they started the No. 6, the new slope, the 6 feet seam? In 1883.

Q. Were they working in this 2400 feet level in the bords up to the time of the fire? Yes. (With regard to the slope which it had been proposed to drive in the McBain seam about 30 chains to the west of the old slope, preparations had been commenced for its continuation from the 1900 feet to the 2400 feet level shortly before the fire. There was good coal on the west side of the 1800 feet level.)

JOHN D. MCKAY said he agreed with the remarks of Alexander W. Reid.

NEIL MCKAY said he also agreed with Alexander W. Reid. (The first 300 feet is bad; the next 700 feet is good, being centre propped. This brings you to 200 feet below the 800 feet level. From that point to 200 feet below the 1,300 feet level is a bad roof. The rest of the slope is in good condition, needing very little timber.) Between the 1,800 and 1,900 feet levels part of the roof was timbered with iron rails, which fairly well supported the weight.

MR. McNEIL states the people of Thorburn desire that the contents of good coal in the McBean seam be calculated to permit of a calculation if a re-opening of the McBean would be feasible.

SYDNEY, Cape Breton, May 24th, 1895.

Present—E. Gilpin.

JOHN MENZIES was duly called and testified as follows :

Q. When did you begin working at the Albion Mines? A. 1857. I think I left the Albion Mines in 1864.

Q. Where did you first work? A. On the banks. Then I went into the Cage pit, No. 12 bord. Wm. Haymen was in No. 11.

Q. Whereabouts would No. 12 bord be in the pit? A. I think they numbered from the main railroad.

Q. When you were there was there a brake right down at the bottom of the pit? Yes, sir. I think there were two brakes in there, if not three. There were two brakes off the railway level. One was called the big brake and the top brake. This one we call the main brake.

Q. This bord was outside of the low coal you were working at? A. Yes, sir.

Q. Then you would not be very far from old Mouse's Hole? A. I think it was near the Mouse's Hole. I worked in it, I think, three times. I think I worked in No. 8 bord once, and I think I worked in the main level right from the bottom; and the last time I was taking out pillars; I think that was in 1863.

Q. Did you draw the first pillar? A. I think I was the first I heard of that drew the pillars in that mine. I think it was right in the level from the top brake to the south, coming back towards the outside brake. It was the point of a jib we started on. I think we brought it probably 16 or 18 feet back. I think we had 4 or 5 feet of solid pillar when we lost her. The roof was too soft. We went right across past the brake to the north side and we drove a pillar 23 feet. We left, I think, about 3 feet and we brought it back in the face. It was the largest coal I ever saw in the Cage pit. We got orders to square up twice. When Scott came in to measure we had a splendid lot of coal. Hall told Scott that he had better stop, and Scott said "No," not to, that there was fine coal there.

Q. What was the thickness of the pillars there? A. The pillars in the Cage pit, they were not so exact about them. There was no crush. The coal stood well. I think 18 feet working places and 18 feet pillars; gate road 9 feet and the main levels were 12 feet.

Q. Were you about much in those pillars; were you acquainted with the pillars over any range of the pit? A. Yes. She was pretty regularly worked. There was talk about the Dalhousie crush, but they kept their pillars pretty steady on one thickness.

Q. How many pillars do you suppose were ever drawn? A. I could not tell, because I left. I went working with the boys afterwards fixing roads and then left.

Q. Did they do much pillar work? A. I do not know. The first back balance I was working at was off the main level, and the second one was started before I left.

Q. If the pit was entered to-morrow, and of course all of those fires were put out of the way, could not the coal be got out of those pillars? A. I think so. If the great heat has not endangered the roof there is no fear of taking out the pillars. From the pit bottom up the main brake they could take them out with very little trouble. From an 18 feet pillar they could take 14 feet.

Q. Since you were there they have drawn nearly all the pillars from the head of the big brake, both up and down, to the north of of that, and nearly everything is drawn out to the face of the working, and we have been told that quite a large number have been robbed from the gate road pillars? A. That must have been done since I left. I worked in the Dalhousie. I was in her when she crushed, and I was in the old By pit just before she blasted, but the Cage pit was the last I left.

Q. Knowing, as you do now from what I have told you, that the pillars away to the north, on the north side, beyond the big brake, have all been taken out, what appears to be left would just be the gate road pillars; now, you do not know whether many of those pillars were robbed or not? A. No.

Q. You were little at it yourself? A. There was nobody at them but myself and John Campbell, and we lost the first.

Q. Do you think if we could get in at the pillars again we could get coal? A. Yes; there should be a great deal of coal there. There must be a pile of coal there. The 9 feet 3 inches seam in the Dalhousie went into stone out westward. There was none of that in the Cage pit.

Q. What is the bottom coal like in the By pit? A. Good. There are a good few of these sulphur balls, but it is good coal. I never heard it complained of. The old By pit was allowed to be the best, but the big seam below that was always allowed to be a good coal.

Q. Did they ever go into the bottom coal in the By pit? A. Yes, sir. There was a stair pit in the By pit.

Q. Was any reason given why you left all this bottom coal? A. I think only 12 feet was taken up. The top vein in the

Dalhousie; I think the high side ran 13 or 14 feet high; then we always left a little at the bottom. Then there was a bottom stone; then we went under the umbrella roof; and at other times we took it open east; a little piece was left at the bottom to level the road. We always had 12 feet at the lower side, 14 feet at the high side; then when we worked the bottom coal we did it in either of two ways, we either left the stone as a roof above us, or we took that down and stowed it and worked it open east.

Q. It never struck you in the By pit that there was 18 feet below? A. I never thought of it.

Q. You know it now? Yes, sir.

Q. Have you any idea that there is a big barrier about the Store pit? No, sir. I never heard of any barrier except towards the quarry. There is a great deal of coal in that big vein. There was no barrier there. The old By pit is very little worked to the south through the intervale down below the pit. It is not much worked to the south. They started it after they lost the north side but they never went far.

Q. Could you get to the deep from the Store pit? A. There was a deep in the south in the old By pit, and a deep in the north; then she blasted and they lost the north side; then they lost the south. There must be a good deal of coal there. There cannot be very much fire except it is leaking from the Foord pit.

Q. Do you know where the Muir slants were? A. On the south side. Yes.

Q. Were you ever in the old Stair workings? I only went through them.

Q. You could go out of the bottom of the Stair pit out towards the river; you could go past the river, then you went up hill through a head; then you got into the lower part of the Store pit; then you could go westward? Yes.

Q. It appears that somewhere in that part of the old Store workings under the river there was a dam put in; whereabouts was that dam? A. You would have a good deal of round about work to go to it. It was in a dangerous place.

Q. I believe on the river bank back of Dr. Donnelly's house where there are marks of some very old workings in the crop of the seam? A. I have seen the marks of it there. The dam was in 40 yards in a straight course from the Stair pit or Furnace pit. I do not know what it was there for. They opened a road from the old By pit right up to the Furnace pit here. I have heard them talking about it. I think Brewer was working at it, making a way through from that Stair pit to save walking around the intervale. He may have been driving it up for the purpose of a blow hole. The lower part of the Dalhousie dip, I think No. 12, was open east; they took it open east at the rise off the top landing. I do not

think the next landing was touched. On the south side of that deep there was no open east.

Q. Were there any places driven through in your time between the Dalhousie and the By pit? A. It was driven through before my time. I never travelled that way. There was a road there they used to take the horses through before the explosion.

Q. Was the roof shaley in the Foord pit? A. I never found any trouble with it. There would be 480 feet of cover. After the By pit exploded they shut it up. She blasted twenty minutes past ten o'clock at night. She was standing next morning taking a little air, but not much. Then they put a scaffold in the By pit and covered it up with horse manure. I heard she blew out in the fall. Then next spring they opened up. This is the time I referred to Wright going on. I think it was in the month of March that Wright went down. She blasted a year before on the 29th May. She was out then, and yet Wright said "she would roast a pig." The heavy fire must have caused the heat. She could not cool off. Then they started after that on the south side to drive the deep slant. I never heard tell of a crush in the By pit. Only in the Dalhousie, and I was in there when she crushed.

Q. Supposing there was no coal in Stellarton, do you think you could get the coal in the By pit? A. The trouble is in getting into that mine where the fire is. I know of no reason why a slope could not be driven from the outcrop at the river in the bottom coal underneath the Store pit, working in the top part of the seam. I never heard of that place that fell in on the river. They had plenty of gas in the old By pit. There was one place, two or three rooms below me, they had to give up. At the time she blasted (By pit) the main air course was 9 feet square. We were over four months with sulphur lamps there. We used to have wet bags for the gas. I have heard that the old Store pit took fire from a hung shot shot after the cutters went to their dinner. After the shot was fired, the men, instead of returning and turning the coal over and putting out the feeders, sat down and got their dinners first, and when they returned it was too late to put the fire out.

STELLARTON, July 16th, 1895.

Present—Messrs. Gilpin, Mitchell, Dick and Madden.

JAMES W. REID called, sworn and examined by Mr. Gilpin.

Q. You reside in Stellarton? A. Yes, sir.

Q. What is your occupation? A. Miner.

Q. Have you been mining long here? A. I came here in 1862, in March, 33 years ago.

Q. Where did you work when you first came here? A. In the Dalhousie pit. I went there loading.

Q. Did you work for any length of time in the Dalhousie pit?
A. I worked about nearly about two years or a year and nine months. I cannot recollect just exactly; that was at loading.

Q. What part of the pit were you working in? A. Down in the slant, about No. 7 landing; but I was back and forward.

Q. Did you cut any coal in the Dalhousie? A. I was loading one year and nine months, then I began to cut coal. I cut it in the rise and down the slant; that was after she crushed. I never cut coal in it before she crushed.

Q. How far down did she crush? A. I cannot say. It was between the slant and the north side where the principal crush was.

Q. Where it crushed in the Dalhousie, was it all high coal?
A. Pretty much, I think. The high coal was not worked down to the dip, but where the crush started, I think, the big coal was worked a good deal.

Q. Were you at the face of the slants; did you work there at all, in the Dalhousie pit? A. No, sir. I never worked there, but I have been down there at the bottom landing at the face of the slants.

Q. Can you tell me of the connections between the Dalhousie and the By pit? A. I never saw any connections, but I heard them say there were connections up the slants at the top landing, but I never saw it.

Q. Where did you go after you left the Dalhousie pit? A. The first time I cut coal was in the Cage pit; then I was back and forward from one pit to the other. I can hardly tell.

Q. Where did you work in the Cage pit? A. I worked pretty much all through in the different sections. I worked in the rise; in the big brake level; in the shaft level and in the dip.

Q. Did you ever take any pillars out in the Cage pit? A. Yes, sir.

Q. Whereabouts did you take them? A. Inside of the big brake; north or west side of the big brake, to the rise of the shaft level like.

Q. Were you working there the time they built off the workings beyond the big brake? A. I can hardly say; I cannot remember whether I was in the pit that time or not.

Q. Did you draw any pillars at any time outside of the big brake? A. No, sir; never did.

Q. I suppose they could have been drawn without you knowing anything about it, in that part of the pit? A. I do not think there were any, to my knowledge, taken outside of the big brake—any pillars taken out.

Q. Were there any pillars taken out outside of the big brake, towards the upper level? A. I cannot say.

Q. Did you work in any other pit here? A. I worked a little while in the old By pit—a few months.

Q. What part of the old By pit did you work in? A. Away down the slant—south side.

Q. Is there anything special you can tell us about that? A. No, sir.

Q. Did you work in the Foord pit at all? A. Yes, sir.

Q. What part of the Foord pit did you work in? A. I was driving the Fan balances for a good long time, and I sunk a slant on the south side away to the dip, and I worked on the north side in different sections of the mine.

Q. Did you work in any of the other seams? A. Yes, sir; I worked in the Third seam out here.

Q. Were you working in the Third seam the time they lost the slant there, at the time of the explosion? A. Yes, sir.

Q. Do you know anything about that? A. Nothing about it, no more than that the fire broke out through the night.

To Mr. Mitchell:—Q. Do you know the extent of the workings to the dip in the Foord pit? A. Well, there were not an awful amount of workings to the dip; away to the north side there was the Muir slant and there were some workings there.

Q. Was there much breaking off of that slant? A. I cannot say. I was not there very much. I do not think there was much coal taken out there. There was considerable coal taken out, but I think they were only opening it up. On the other side we drove two lifts; on the south side we drove on the pitch of the coal, and they intended to work it back to the pit bottom and they broke the levels off half way up—350 feet, just the length of a balance; they were driving the first balance from the slope. I cannot say for certain whether I was in the Cage pit when they built the fires off. I remember the time they were building them off. I do not think I was in the Cage pit when they said there was fire in her. The Cage pit fell pretty high when they drew the pillars on the main level about two squares of work inside the foot of the Big brake. There were no signs of fire when we were taking the pillars out. They fell probably 20 feet. On the main level inside the foot of the Big brake the balances were robbed and left on stumps. I do not think there were ever any pillars drew outside of the Big brake.

Q. What was the size of those pillars? A. On an average they were about seven yards; they might be off and on 6 or 7 yards; some thin and some thick, and not very regular.

Q. How often would they cross-cut those pillars? A. I can hardly say. I never worked in that section. Some time a couple of chains or so, according to what the air would allow.

WILLIAM FREW called, sworn, and examined by Mr. Gilpin.

Q. When did you start in this mine? A. That is a question I cannot answer.

Q. How old are you? A. Sixty-six.

Q. Are you still working? A. Yes, sir.

Q. What are you doing now? A. I am at the slant in the McGregor pit.

Q. Did you ever work in the By pit? A. Yes, sir.

Q. Did you cut coal there? A. Yes, sir.

Q. Did they ever crosscut into the bottom coal in the By pit?

A. Not to my knowledge.

Q. Did you ever see any of that bottom coal, the bottom part of the main seam, to know what it is like? A. The old Top pit, they tried it there. On the south side it was 31 feet. I think it was.

Q. Was it good coal? A. Pretty much full of stone.

Q. In the Dalhousie workings it was good? A. Yes, sir.

Q. Did you work in the Dalhousie pit? A. Yes, sir.

Q. Do you know if they ever got the bottom coal, down to the bottom of the Dalhousie slants? A. No, sir; it was not cut down to the bottom.

Q. How far down those slants did they work the big coal? A. I think it was to No. 8 landing.

Q. Did you work in the Foster pit? A. Yes, sir.

Q. What was the Foster pit coal like, was it as good as the other? A. The south side was good and the north side was bad; it was not workable on the north side.

Q. Did you work in the Cage pit? A. Yes, sir.

Q. Did you have anything to do with that part of the pit that was built off in past the big brake? A. Yes, sir; and I worked inside of that that before it was built off. I was not working there when they had to build it off. It was built off from the shaft level square up to the furnace. Below the shaft level I think it was built off, too. The water was hot coming out of that. There was a small pipe on the lower side of it; $1\frac{1}{2}$ inch pipe, I believe.

Q. Have you any idea how that part of the Cage Pit got on fire? A. No; I have not.

Q. Did you ever do any work in the pillars outside of the big brake? A. Well, I worked at the top of the big brake; there was a gate road went up outside of the top on the big brake and we drove a bord in a pillar there; there was another two set of men above us splitting the pillar, taking one-half. That was all that was worked there that I know of; that was the style they took them out them days. If it was a thick pillar they might take more than

half. If it was fifteen feet they would take ten feet; that is the way we done them.

Q. Then your recollection is that all the pillars outside of the big brake would be standing, except a little piece at the head? A. They are all standing at the outside of the big brake—full size. They were never touched or molested out there.

Q. Were they as thick as the pillars inside of the big brake? A. There would be some middling, thick and thin. Some six inches thick. (Two pillars six inches thick.)

Q. What would be the thickest pillar? A. From fifteen to twenty feet and thirty feet; they were not all the same thickness. From the Big brake at the Cage pit bottom to the Big brake inside the pillars are all fairly good. Between the brake at the pit bottom and the Big brake inside there are two thin pillars; all the rests are good. From the Big brake at the pit bottom to the northeast side the pillars are all good. I have seen fire damp or gas in the Cage pit on the south side going east; it was always there. I saw it on the safety lamp.

Q. Do you know that the south side was not driven very far? A. Yes, sir. I was there when Redpath was killed. I commonly went around that district. I went when I was told. I would not go with a naked lamp. I had a Glennie lamp. I would hold my lamp until it showed and then took my light away.

STELLARTON, N. S., July 17th, 1895.

ALEXANDER FRASER—Called, sworn, and examined by Mr. Gilpin.

Q. Do you know anything about that fire in the McBain seam? A. I do not know anything about it. I was working at the time in the lower lift.

Q. Are you well acquainted with the main slope? A. Pretty well acquainted; I travelled it for 23 years up and down twice a day pretty much.

Q. There were the 600, 1200, 1800 and the 2400 feet lifts? A. We counted them first and second. The first two that Lawson sunk, and then what we call the Receiver that was the 1200, the 1800, 2400 and the 3000.

Q. What was the roof like in the slope of the two first lifts? A. Soft; shaly—very light. The first lift at any rate Lawson counted to run cages in and he drove it eight feet high. He took eighteen inches of the roof down and timbered across the height of the seam and put blocks on top of the coal; then I think they changed their mind and run the rakes and left it to the height of the seam.

Q. What was it like from the Receiver lift down to the 1800 feet lift? A. Pretty bad. The next lift it was bad. There were center props in one of the lifts all the way down. They were the two worst lifts in the whole slope.

Q. What was it below that? A. It was pretty good below that.

Q. Was there not a very bad fall at one place in that slope—did it not fall up? A. No, sir; I knew it to fall, but it did not amount to anything. It was very wet, and the water broke through at the first sinking. She was wet to the first lift; very wet. After she was drove down she was dry.

Q. Did you work in the west side of that seam? A. No, sir. I always worked to the east.

Q. What was the coal like on the east faces, the lowest levels? A. Fine coal. That was the best working coal we had down there. I was in the first balance, on the east side, in the 3,000 feet level, when she fired. I drove her up to the No. 8 board with one can of powder. It was never known to be done in the McBain seam before.

Q. From your knowledge of that slope, do you suppose anything could be done to that slope—if it could be opened up again? A. There is an old saying that money makes the mare go.

Q. Do you know anything about that place to the west. A. Yes, sir.

Q. Would there be any trouble getting down there—is there a good roof on that side? A. There is generally a pretty good roof, and there is a place by the 1,800 the heads be may coming close together—cross sections; there was some little fall, but it did not amount to much. The roof was pretty good. I travelled it for six months there.

Q. Can you say anything of the quality of the coal on the west compared with what it was on the east? A. Only by report. I know the coal from the bottom, from the 3,000 that came from the west side, was very good, and up above, too. I know the rails are left in all the old levels at the 1,900 feet levels and above.

Q. Were the rails not left in on the 1,200 feet level for timbering purpose? A. Yes, sir. They were all taken out to the new slope, where it was supposed to go.

Q. Do you know the thickness of the coal on the west side? A. Seven feet. On the east side was the same. I drove the balance from the bottom of the level to No. 8 board. We had seven feet of coal. The faults are just as you have them, because I worked in all. When you go through the second fault you are pretty well through the area. It is not worth while going through. It may be above. I do not think it would pay to go through. It is second quality, anyway. There was a piece left on the roof to keep it good.

NEIL MCKAY—Called, sworn and examined by Mr. Gilpin.

Q. You have heard the evidence of J. W. Reid read over, and you have heard what Alexander Fraser has said, and Fraser and Reid agree closely except in one thing, that is the condition of the McBean slope, do you know anything about that slope? A. I know a little about it.

Q. How would you describe that slope? A. I agree with it, that it is right as far as it goes.

Q. What part of the pit did you work it? A. In the west side.

Q. What do you think of the quality of the coal on the west side of the McBean seam? A. On the west side I started the level at the main slope and I drove it in as far as it went—the 1800 feet level. I took the last fall off. Turnbull went there in March, 1873 or 1874, and I went there in June, and I worked there straight ahead until he was dismissed. The quality of the coal was good; that is what they told me.

Q. Was it started again after that? A. No, sir.

Q. What is it like in the level below the face in the 2400? A. Pretty fair coal. I never heard anything about it.

Q. Was the coal as good on the 1200 Receiver level at the west face? A. I cannot tell you; I did not work there. The deeper they went the longer they were getting on the west side.

Q. Was there not any coal being talked about as bad on the west side? A. To the rise, not to the dip.

Q. Was there any talk about thinning out? A. No, not on the west side. It was thinning going east. I was in the sinking of the McBean seam and when we were going down the McBean 7 feet seam it never lowered an inch except going east but not going west. What they drove down the slope it went as regular as possible. In the six feet seam from the beginning to the end it was just on the up and down, sometimes six feet, sometimes it would be eight feet; it was not running regular. When they drove east and west the same difficulty occurred. In the McBean seam there was nothing like that. The possibility might be that the same trouble in the Six foot seam would be in the McBean seam. The both slopes being driven did not set the same, that is my opinion. It is said by some people that when you got to the basin of the McBean seam this trouble would not be there at all.

Q. Do you suppose the McBean seam crops up again on the reverse dip to the west of that property? A. That is the theory as far as I know. That is my opinion. My opinion is that to go to the west; I think it is there there the body of the coal is. It is possible it may turn out just as the Six feet seam did. In the Six feet seam it did not go with regularity.

Q. As to the quality to the west in the 1800 feet level, were you satisfied that it was good coal? A. Yes, sir, as far as I know

WILLIAM M. ORMOND called, sworn, and examined by Mr. Gilpin.

I may say that as far as the past is concerned, it (Thorburn's) was a very fine place, and continued as such until eight or nine years ago. A large number of men were employed, and I should say \$8,000 per month was distributed amongst the business men. At that time mostly all the company's houses were occupied, and also the houses in the village, and things generally were flourishing. The good times started in 1878 and continued. I think the fire was in 1889, and the troubles commenced then, and the condition has been growing worse since that time, and to-day I do not think there is a quarter of the business done there. A large proportion of the houses are empty. I think there are pretty nearly 200 apartments for families there altogether; out of that I think there would be over 60 per cent. of them empty to-day. There are about a dozen families there whose husbands are away, and those people cannot get work there whose husbands are away, it makes it pretty bad for them to be separated. There are about 90 houses outside of the company's houses. Some of the company's houses are double and will contain two families. Assuming that there is plenty of coal there, it would be advisable to open the mine.

Q. Can you tell us about the quality of the coal in the McBean seam? A. It must be certainly a superior quality of coal in the McBean seam, when, during the strike in 1886 and 1887, the Steel Company sent men there and some of the officials came and dug the coal themselves. That is pretty good evidence that our coal is superior. It must have cost them at least \$25 a ton. I knew there was some complaints about the coal from the first lift, that they could not sell the coal.

Q. Take the three years preceeding the fire, did they have any trouble in selling the coal? A. I do not know that they had, except the competition from the Cape Breton mines. Previous to the amalgamation I think it worked steady. I think the amalgamation was in 1886. For three years it may not have worked as well.

Q. Then you think that if the seven foot seam was opened it would take its share in the market? A. I believe it would. I understood that the Steel works used it to a great extent and they would give almost anything to get it, as shown by the fact of them going there to get it.

Q. After the strike, did they continue using it? A. I do not know, but I think they always used more or less of it, and I think they used the six feet seam, too.

Q. The six feet seam, is that as good quality as the old seam? A. I believe it is not as good. I believe they have had some trouble in selling it. They were supplying the I. C. R., and had some complaints from them on account of the ashes, and the Steel

works, too, stopped using it for a while, but I think they were selling them to the Steel works after that.

Q. Then you think the opening of the McBean seam is feasible? A. There is an opinion out there that the six foot seam, if followed out to the west side, it would thicken out; that is, where it is thin. Mostly all the men in Cape Breton belonging to the place would come back if the place were opened up again. Fully 50 men went to Cape Breton within the year.

Q. Would you give us some information with respect to the value of the property there? A. You could buy it for one quarter of what it cost. A house was assessed in 1874 for \$700, and in 1895 it was sold for \$408. It cost \$1,400. Another house was assessed in 1893 for \$470, and it was sold in 1895 for \$300. The same house originally cost \$1,200. The Vale Store was assessed in 1893 for \$2,256, and in 1895 it was assessed for \$1,530; that store has failed; it did about one-third of the business of the place. In 1893 the assessable property outside of the Acadia Coal Company was \$21,814; at the present time it is assessed at \$19,144.

Q. What caused the depreciation? A. Loss of the distribution of money. The property going out of repair would reduce it some.

A. D. McINNIS called, sworn, and examined by Mr. Gilpin.

I do not know that I can add any more to what Mr. Ormond has said.

Q. How do you account for the difference between the County valuation and your own valuation in the assessment? A. I think the same system has been followed for a number of years. There was a change made, I think, about seven or eight years ago. I have been an assessor for the last two years. Before that they were generally appointed outside of the village, and they assessed the property higher. They would not acknowledge there was a depreciation there. The fact of the matter there now it is impossible to sell property. One property sold a few days ago for \$300; it was bought for \$900, and besides that there were \$500 worth of improvements on it, but the man was lucky to sell it. I do not remember of any other property being sold there, except one at Sheriff's sale, nearly two years ago. I have no practical knowledge of the coal. I often heard the people complain of the coal. I can safely say I never burnt any bad coal. It was heavy in the ash. I never had any bad coal.

Q. Then you consider that if the McBean seam was opened it would put you all on your feet again? A. I am not doing any business now, but if they open it I will start business there again, and I prefer starting it there if the pit is opened.

R. P. FRASER, of Pictou, called and examined by Mr. Gilpin: We would like to have an expression of opinion as to the effect upon

the general business of the County, by the re-opening of the seams of coal which are at present out of our reach on account of fire, and what the position of the County would likely be if it were possible to open and work them? A. I have not given the matter any thought lately, but as I understand it you wish my opinion as to the effect on trade of the re-opening of those mines.

Q. Yes, assuming we had opened all of these mines? A. I think it would have a great beneficial effect on the trade of the County particularly in the coal trade, because the idea is going abroad that our coal resources are getting limited, and it is only a matter of a few years when we will have to close up.

Q. Then you think it is more important for the sake of reassuring the public mind than for any immediate gain in the selling of coal? A. No, not at all. I do not take such a sentimental view of it; I mean from a business point of view. I think it would be a great matter if the old Albion Mines coal were put on the market again; it had as you know several qualities about it and characteristics as a coal that are not in the other coals on the market. One of them was quite a good gas coal and was also used for blacksmith purposes, that is the slack. I do not think other coals takes its place.

Q. Supposing these mines were re-opened, and that they were to take out half a million tons more, do you think it could be sold, would there be any practical gain? Do you suppose that from your knowledge of the coal business of the County that if the Acadia Coal Company and the Intercolonial Coal Company were to double their output to-morrow they could sell their coal? A. I am hardly qualified to answer your question. To-day Fergie cannot fill his orders for coal. He is as busy as he can be.

Q. Is there a market which would absorb an increased output? A. Well, I hardly think that view of it should be taken just now, in connection with the whole question. I think the point is, is it practicable, to put them in a position to get the coal. I do not think we could sell that additional quantity if we had it, the way trade is at present; but as I said before I am hardly competent to give an opinion on a commercial point like that. Montreal is actually our great consuming point, but Mr. Fergie to-day is sending a good deal to Halifax for bunker, and the Ferrona works and the steel works use a great deal more.

Q. Supposing that the fact was established that the seams were capable of being re-opened at any time, would the general knowledge that the resources of the coal district were increased promote manufacturing, for instance. A. I think so.

Q. Would it benefit real estate? A. It would benefit it this way that it would tend to keep confidence all right. I think as far as the present demands for coal is concerned for our manufacturers we have all they require for a few years.

Q. For instance take Thorburne—the real estate has been rapidly increasing there on account of the Vale Colliery—would the fact of the knowledge of these increased mineral resources have a beneficial effect to the district and encourage other industries to keep about that district? A. Yes, I think it would.

Q. Would the present or possible future state of this coal trade have any effect on the iron industry? A. I should think it would have the greatest bearing on the iron industry. I think the iron trade is only in its infancy here yet.

Q. Is there any particular view in the county of the present state of matters. What view is held through the country—do they consider that the mines should be re-opened and made available? A. As far as I understand it, the public would like to know if there is any more available coal inere, or is it to be viewed as entirely gone, is it there and can it be got out in the future.

STELLARTON, Wednesday, July 17th, 1895.

Present—Messrs. Gilpin, Mitchell, Madden and Dick.

JOHN MUIR—Called, sworn, and examined by Mr. Gilpin.

Q. You have been working here for a good while? A. I have been working there since I was a boy. I suppose, in the pit, 48 years.

Q. Did you ever work in the By pit? A. I never worked in the old By pit, but I worked in No. 3 pit, which was connected with the old By pit. I was a driver as a boy.

Q. Did you ever cut coal? A. I cut coal in the old By pit before the fire took place. I was in it at the time of the fire.

Q. They only worked the top coal? A. That was all they worked.

Q. Did you ever see any of the bottom coal? A. No, sir.

Q. Did you work in the Cage pit? Yes, sir.

Q. What part of the Cage pit did you work in? A. I worked to the rise. I drove a level to the rise. There is air shaft there, and I drove the level down below.

Q. Did you ever take any pillars out of the Cage pit? A. No, sir.

Q. Were you in the Cage pit at the time they built off the western part at the Big brake? A. Well, no; I do not think I was in her at that time.

Q. Do you know anything about the pillars in the Cage pit outside of the Big brake? A. Well, there were some small and some large. In the places those days they did not keep every pillar alike; there were some thin and some large ones.

Q. Did you work in the Foord pit? Yes, sir.

Q. When did you stop working in the Foord pit? A. I was in her until she blasted.

Q. Did you see any of the bottom coal in the Foord pit? A. Yes, sir.

Q. What was it like there? A. Very good. I was working in it at the time she blasted. They were driving a side track to the main track up the hill and came out on the main track again on the bottom coal in about a quarter of a mile from the bottom. The reason they were making the side track was to take the inside coal out; then we put a slant there.

Q. That was on the north side? Yes, sir.

Q. And the bottom coal was good there? Yes, sir.

Q. Did they cut the bottom coal anywhere else in the Foord pit? A. Well, not that I know of; at least I did not myself.

Q. Whereabouts did you work in the Cage pit, you say you drove a level to the rise—where was that?

A. I worked in the rise to an air shaft. I drove down the level from the shaft and I drove the level on No. 7 landing.

Q. You worked in that part of the workings between the two brakes—between the big brakes? A. No, sir; I never worked in there to my knowledge. I worked in the level inside of the brake.

Q. Inside of the brake that started from the bottom of the Cage pit? Yes, sir. I worked the level inside of that, but I did not work to the rise.

Q. Do you ever know of them splitting pillars there? A. I never knew of them doing it; but of course it might be done and I would not know anything at all about it.

Q. Did you work in the Dalhousie pit? A. Yes, sir.

Q. Did you work in the north slants in the Dalhousie? A. Yes.

Q. Did you see the bottom coal there? A. Yes, sir; they used to work the bottom coal there. I was working in the bottom coal at the time she crushed. I worked in her after she did crush. We were driving a travelling road and we worked a spell after she crushed.

Q. Did you work down at the face of the slants? A. I could not say exactly. I would not say at the face of the slants. I do not remember. I never worked any coal down there. The bottom coal of the Foord pit is just good where the top coal is good. If the top coal is good the bottom coal is good. I think I was the first that broke into the big coal, and we commenced on the inside when the coal got bad; then they came away back in the Dalhousie and started at the bottom. Where the top coal was good the bottom coal was good. We found that the case.

Q. Did you work in the Foord pit until it stopped, up to the time of the blast? A. Up to the time of the blast.

Q. Were there any pillars robbed in the Foord pit? A. No, sir; not that I know of. I worked the big coal in the old By pit. I drove from the old By pit level. I drove a travelling road for horses and men. I drove it from there to the Stair pit; about 8 or 9 feet of coal we left on. I also drove a narrow place for a travelling way. About two years I was at it and the coal was good; wherever the top coal was good we found the bottom to be good.

Q. Didn't they cut the bottom coal in the old By pit at the time of the same crush? A. Not to my knowledge.

Q. What connections were there between the old Store pit and the By pit? A. There was no connections, only bore holes, not until they moved out; then there were connections made between the Dalhousie and the By pit. I do not know of any communication between the Store pit and the By pit on the other side of the little river. They had a connection right opposite the furnace shaft, where they let the water off to take it away. I think that barrier, where they let the water off is unbroken, as far as I know.

Q. Dou you know how much of the By pit crushed at the time—how much settled? A. I could not tell you. The four pits we lost them at once. They all crushed at the same time.

JEFFRY McCOLL—Called and examined by Mr. Gilpin.

Q. Is it worth while looking to the opening of the mines to increase the business? A. It would increase the business of New Glasgow very much, and I need not say that, the mines being in the state they are in, they should attempt to re-open them or abandon them altogether. The great trouble is just this, that they collect a population anticipating something is going to be done, whereas, if they abandon the mines this population would move away and we would get into some other business. The population here about Stellarton are depending upon the mines, and without these mines were worked the people would not stay here, and my idea is that the government should come to some arrangement with the lessees of the mines, so that they could re-open the mines or abandon them. Looking at it from an outside standpoint, we think they should be able to locate the coal measures elsewhere in this coal field. They all tell us that coal lies in the basins; they should find the outcrop. Looking at it from an outside point of view it would seem that they have given their whole attention to the mines which have been destroyed instead of opening up new places, and they are throwing away their money unnecessarily, which is always an injury to a country or district. But then we are not miners or experts. It has been said that if you lose anything you have got to go to look for it where you lost it, but there is an exception to

to that rule. It is no use to go into a mine which has been destroyed. We feel it is injurious to business places where you have a number of men depending upon a mine for employment who only get half time. The men have to live; the company will not keep them; but the shopkeepers have to keep them; the men are always expecting better work, and this is the manner in which the thing is carried on, which always tends to injure the business of a place.

Q. Supposing it is feasible to re-open these mines, is it worth while working more coal mines? A. If they cannot sell the coals it is not while working them. We have an idea that mining is like every other business—the more you sell and the more you work at it the cheaper you can do it. If you work it cheaper all that can be raised in the district can be sold. We find in Cape Breton the new appliances gives them the coal at a less price, and they have a better demand for it. If a man goes to buy coal he will go to the cheaper market. I am not saying that the Cape Breton coal is worth the same as the Pictou coal.

Q. Are not the present operators supplying the demand? A. Not as far as we can see. Vessels are detained four, five and six weeks in Pictou. In olden times they banked the coal, but they bank very little now. In summer season they only work half time, and I do not know the cause of it.

Q. Is it the want of demand for coal? A. The demand is in the fall of the year. A man does not usually lay in coals until he requires them. They are not able to supply the demand when it comes. In old times they had a large quantity banked so they could ship quicker. They used to ship 2500 and 3000 tons a day here. Coal users are prejudiced like other people in other things. If they want Pictou coal they will have it. There is a large amount of coal outside of contracts. I believe that if the old pit at Thorburne was working to-day they would ship fifty per cent. more from there; they are better coals than what they are working here. If the Foord pit was working, and the Cage pit, which was allowed to be better coal than No. 2 and No. 3 seams, they would ship from 50 per cent. to 100 per cent. more to-day. There is no coal shipped to-day mined from the Foord pit seam that I know of. At one time they sent some of this coal up the St. Lawrence, but not as much in late years. The Cape Breton coal is cheaper.

J. L. JENNISON, Mayor of New Glasgow, called and examined by Mr. Gilpin:

I am not a mining man. I have listened to what Mr. McColl has had to say and there is no doubt about it, that it would be a very great advantage to this community and the country in general if the pits were opened up and more employment given. For the

last few years the mines have been worked in a quiet way and a great deal of complaint has been made that even those engaged in working the present mines have not been employed full time. Of course the other question comes in whether or not it would pay to reopen these mines. There is one thing that we do know and that is that sometimes even our own industries in New Glasgow are not able to get coal they require. Take for instance the Electric Light Company, of New Glasgow; they use some considerable quantity of coal in the run of the year, and their furnaces are constructed to burn culm. We have not always been able to get the culm, and have brought coal from Springhill for our furnaces.

Q. Could you get suitable coal if these pits were opened out here (at Thorburne)? A. Yes. If they were shipping large quantities of coal the culm would be produced and we could be supplied all right. Of course there is a general depression now in business, and it may be questioned whether it would pay to make a very large expenditure at the present time; but I am of the opinion that this County does not get its fair proportion of the sales from the output of the mines in this country. When custom is once lost, the old customers go elsewhere and it is pretty hard to get them back. There is no doubt about it that it would be a very great advantage to this county if the mines could be reopened, and the other question whether it would pay is a question I cannot answer at all.

Q. Would it be any advantage to the value of properties here in the County to know that there were large coal resources in the Foord pit, leaving the question of immediate opening out altogether? A. I think so.

Q. Is it the general impression now that the coal trade is panning out—that it is fading? A. You mean whether I as an owner of real estate knew that there was a large deposit of coal here, would I value my property more.

Q. Yes: is it the general impression that the coal is becoming exhausted? A. I think the general impression is that there is an inexhaustible field of coal here yet. I think that is the general impression, but that may not be founded on any satisfactory data. From what I have heard from the people here, and I have been living here eleven years, there is an inexhaustible supply of coal in Pictou County. I speak of that now in a limited sense for years to come; and that it only wants opening up. The old pits should be preserved or new pits sunk on new seams on another part of the earth. These mines are not getting their fair share of the coal business of the province, and I think this investigation will be a good thing all around and especially for the company. It may show that this talk is all nonsense about working coal. If they cannot show that they ought to put up or shut up.

HARVEY GRAHAM, Secretary New Glasgow Iron, Coal and Railway Company, called, sworn and examined by Mr. Gilpin.

It is a most regrettable state of affairs, that we have at any rate, and I suppose anyone who has had anything to do with the coal business for the last year, or who understands to some extent the difficulties the present lessees of the coal areas here labor under. Coal cannot be mined as cheaply here as in Cape Breton. Just what ought to be done is a question perhaps not so easy to solve as to what might be done. As Mr. McColl has said, something is wrong when the treasures of the province can be locked up and held by the simple payment of a small rental. There ought, in my opinion, to be some way when from accident, failure to work, or other causes, the lessees of coal properties did not operate them, the government should take them over at a valuation or occupy them in some other way. When a country is new leases are not likely to be forfeited where there are numerous places where coal is mined on the same area. Under such circumstances the thing does not reach a crisis, as when they come to the point where they are holding leases without working them. I assume that this investigation is particularly held with reference to the Foord pit. Here is a very valuable property in which the province is expecting a large revenue, and why they are being deprived of that revenue is one of the objects of this investigation. It is the best coal in the district, outside of the Acadia coal proper, at Westville. I have rather extreme views in this matter. I would favor the government remitting a very large amount of royalty or giving the company a direct loan for the purpose of opening up this property and thoroughly testing it. I understand the Foord pit coal was the best coal in the district. The Foord pit has not been working since we have been in operation to any extent.

Q. How does the present development of the coal trade bear upon your steel business? A. I do not know that it bears unduly heavy. We are able to get all the coal we want, and perhaps as cheaply and at as favorable prices as we could expect. Home consumers pay more than those away from home, consequently I dare say the coal we burn here on the spot gives a larger revenue to the producer than what goes to Montreal or outside ports. We have not been able to get sufficient coal for coking purposes. In more extensive mining operations they would have a larger quantity of waste, of culm coal, to sell, which would be an advantage to manufacturers. We used the Thorburn coal at the Steel works and we found it very suitable coal. We are using at the present time coal from the six foot seam of the McBain seam, and we find it is very satisfactory.

Q. Do you suppose that such action should be taken—that the government should subsidize an attempt to re-open those abandoned workings—is it a proposition that could be fairly put before the government? A. I do not see why not.

Q. Where are they going to stop subsidizing people? A. Every case must stand on its own bottom. If there are millions of tons of coal in the Foord pit seam, and that is worth ten cents a ton to the government, I would consider it a legitimate expenditure for them to expend a small part, to be repaid by the company if it was successfully won. Consider it as a loan if it were successful—if it would not be successful it would be a loss to the government.

Q. What would be the difference in taking it out of the county? A. It should come out of the whole people, and if successful the revenue would go to the whole people. If you do not do that, annul the lease and place the property on the market and get what you can for it. When a company can hold a property and not work it, there must be something rotten in the state of Denmark. If the winning of this coal cost the same as the Cape Breton coal we ought to beat the Cape Breton coals in the Montreal market. There is 48 hours' difference in favor of Pictou, and our coal is better and larger. The Cape Breton coal carries a larger percentage of sulphur, which is undesirable for iron smelting. The Foord pit coal, I think, is one of the best coking coals in the province, and the people of this county would very much like to see the Foord pit working again, if for no other purpose than to get the waste coal for coke.

STELLARTON, July 18th, 1895.

Present—Messrs. Gilpin, Mitchell, Madden and Dick.

HENRY S. POOLE, agent of the Acadia Coal Company, called, sworn and examined by Mr. Gilpin:

Q. You have been present and heard a lot of evidence, and I think you have read pretty well all except what we took yesterday, and I do not think there is much in the new evidence which differs from anything we have already had. Now, we have asked a good many questions about the old workings, and as far as we think in a general running over of the evidence in what we might call the old workings in the old seams, there is an immense amount of pillar coal left, which we take for granted has been destroyed by falls, etc. In the whole of these workings except the Dalhousie the bottom coal has not been touched; in the Dalhousie there appears to have been a lot of bottom coal worked wherever they could, and with respect to the quality of that coal some of the evidence says it was good coal in one place and stoney coal in another—could you tell us about the bottom coal in the workings in the old seam? A. I never was in the By pit or in the Burnt mine (Store pit workings). I never was in any of the old works.

Q. You know something about the bottom coal in the Foord pit—in respect to the quality, etc. A. Quality is a relative term. It would burp. It was coal.

Q. Is it what you would call merchantable coal at the present state of the market? A. That is a trade question which even if Mr. Clendenin were to put to me I would have to hesitate to answer. I was disappointed with the bottom coal.

Q. The Commission would like to know as to the possibility of separating any of the old mines. We find from the plans and the information given to us that they are all more or less connected; could you give us any information other than what we have got with reference to these connections—take for instance between the By pit and the Store pit? A. I have no reason to doubt that the connection on the east side, as shewn on the plan, is there, and that the barrier is destroyed west of the Dalhousie fault.

Q. What do you mean by west of the fault? A. Where the main fault runs from the Top pit of Dalhousie to the By pit of the crushed mines.

Q. I noticed that you said it was a relative question of quality about the bottom coal, and I thought perhaps you might consider it in relation to the quality of the part of the seam that you worked, of the upper part; take the question of quality in relation to the part you did work? A. All the work was in the bottom coal that I had to do with.

Q. In all these Foord pit old workings it was really only the top coal that was worked? A. Yes.

Q. Which coal do you refer to that was worked in the bottom coal in the Foord pit? A. Only levels and headways were taken out of the Foord pit after it was opened.

Q. With regard to the Cage pit seam, after it was closed you started a slope to the east in the same seam, what was the result of that sinking, I mean with respect to the quality of the coal in the English slope, was the quality of coal satisfactory there? A. I take it that a great deal was not; I think you can see the quality of the coal for yourself, as a whole section of it was put in a building at the pit head. It was driven 1800 feet. The section was taken from the bottom of the slope.

Q. What was the thickness of the seam? A. The seam has several partings. If you wanted to make it look well on paper it would run from 21 to 22 feet. You may call it 36 feet at one part if you like.

Q. Twenty-seven feet was the highest they ever worked in the old Dalhousie workings? A. Yes.

Q. Suppose for instance a slope were driven down from the crop in the bottom coal of the main seam, would it be possible to work that bottom coal as a matter of business, as a commercial undertaking? A. There are so many points that would affect its commercial value—the question of the openings above; the regu-

larity of the pressure; the question of ventilating or not ventilating the old workings overlying; the distance apart—those would all have to be taken into consideration. But if you will state the condition of the section which you propose to work—is there to be a smouldering fire in the workings overlying?

Q. No, assuming they were not ventilated? A. Then you are to assume that the old workings are full of deleterious gases.

Q. It has been suggested to this Commission that it would be quite feasible to go into the main seam and drive down into the bottom coal and work out large quantities, irrespective of the state of the workings above? A. Then you would have to be prepared to meet some of these old places driven into the big coal. You might break into one of these. You might find the parting between the big coal and the 9 ft. 3 in. had been all taken away or the bords had got too much to the rise, where they worked 15 or 18 feet high. I would not take the job at any figure.

Q. I presume that when you re-opened the Foord pit it was with the intention of working it? A. I had no intention of working the big coal. I was not the manager of the Foord pit workings.

Q. What time was the Dalhousie pit worked; when was it closed? A. Speaking generally I think it was closed about 1867. In my father's time all the workings were from the Dalhousie to this line, in 1854 (pointing to the plan.) Subsequently the Mulgrave slants were driven and the big coal was taken under the umbrella roof, so that you have 13 years to do that piece of work. (Witness expresses himself as being satisfied with the western faces as shown on the plan.)

Q. During that time they could sell anything in the shape of coal? A. Sell anything that was black. Most of the coal taken out of the Foord pit in Will's time they used in their own furnaces and boilers.

Q. What was about the position of the crop to the north side of the Foord pit? A. The north crop has never come to the surface. The cover was about 800 feet. The faults were changed in the drift.

Q. Do you mean to say that there was a fault in the metals? A. Apparently there is a break. There are other faults there—minor faults as well as great faults. You cannot tell where these secondary faults are interfering with the quality of the coal. The big north fault is not within our area line except in this corner (pointing corner out on plan).

Q. As far as your experience has gone, you do not suppose that the main seam crops up again on your lease? A. I have no reason to believe that it does.

Q. Do you think that it extends beyond your lease? A. I should be very sorry to spend any money outside from what I know of it at present.

Q. Did not Mr. Wills take proper steps to reopen the Foord pit? A. Certainly not, since it has proved too much for him.

Q. He proposed some steps I think for strengthening the shaft which were not carried out; will you tell us why that was not done? A. He never completed his base to build anything on.

Q. His proposal was I believe to line the shaft with brick? A. He never finished the arches that were begun upon which any lining would have to be built.

Q. What was needed for a base for the lining of the shaft? A. The arches on both sides coming to the pit bottom—they were never finished.

Q. What was the reason Wills did not finish them? A. I would not pretend to say what his reasons were.

Q. He had the material and everything provided? A. As far as I know there was nothing interfering with it.

Q. Can you tell us whether Wills was prevented in any way from carrying out the recovery of the Foord pit? A. Or the destruction, which? The question of the closing of that place in my mind had nothing to do with the fire for there were so many more openings for the air to get in—it was merely one of a number. Those cracks where ashes came down on Turnbull, that was one; then there were two places at the head of the shaft pillar where air got in. The fan shaft was supposed to be covered after a time. Wills was not prevented from finishing the arches. To my knowledge he never applied for material which was denied him. I have no recollection of it. Sometime in the autumn before the place was closed up we were speaking of that very thing, the finishing of the arches. The ground around the bottom of the shaft is all gone. There were two bottoms; the old bottom of 9 feet 3 inches and the new one; and the fire of 1880 brought them together and there was a squeeze on the sheets. There was a little widening of the bottom on the west side of the shaft in Wills' time. The bottom coal of the Foord pit compared with the top was not so good.

Q. Does that answer refer only to the coal that was worked or to the field generally? A. I should say it was universally throughout the Foord pit.

Q. How is the coal in the Ford pit? A. I never was down.

Q. You are doing a little work in the main seam, in the vicinity of the Foster pit? A. Yes.

Q. What is the coal like? A. There is one ply of three feet that is fair coal.

Q. Don't you think that it would be possible for the fire to come down into the Cage pit? A. Anything is possible.

Q. Is it not probable? A. No.

Q. For what reason? A. There are not workings above it to go through.

Q. It could go through, although the workings were not perpendicularly above? A. No, I do not think it would. I have never known a fall of that character to run along laterally at an angle for so great a distance. The origin of the fires may have been by naked lights or by spontaneous combustion.

Q. And these workings were on fire at the time in the overlying workings? A. Yes.

Q. And they were on fire at the point within one chain and a half laterally? A. No, I do not think so. I think your distance of one and a half chains is too small. I would not undertake to say that Douglas was wrong, but I would say that I do not think his conclusion is right. He merely gave his opinion. I say that the fire was not likely to have dropped down from one to the other.

Q. What sort of measures are there between the two seams? A. Sometimes shaly, sometimes sandstone bands. These workings are about half a chain out on this plan. They started with the Cage pit as a base line and errors were made on account of the courses they ran.

Q. Do you think it would be worth while to re-open the Ford pit again as a commercial undertaking? A. What money would you give me to attempt it?

Q. What would you expect as a salary or bonus? A. What money would you spend on the job? I am afraid to answer that question; it might bring me into trouble with the present owners. I am in a pessimistic position. A boom may come on, as it did in 1873, and where would I be?

Q. We are sure there is fire in the Ford pit? A. Yes.

Q. Could you put it out is a question? A. No, could you? I cannot put that fire out in the Ford pit. I do not know whether it is feasible to put the fire out. The Foord pit might be utilized as a pumping station. The so-called falling in of the intervalle from the surface I always thought was one of the old river gulleys.

Q. Have you any information about that dam under the river? A. That dam you speak of I think was just a temporary dam to hold the water back. When the explorers entered in 1849 they got a lot of tools out. The workings were all standing. There never was any fire in there to weaken it. There is no fire on that side.

Adjourned until 3 o'clock.

Examination resumed.

Q. In respect to the Thorburn district there has been a good deal of evidence tendered about that district—have you any idea at all of the value or extent of the coal left unworked there? A. Nothing more than what is evident to anyone else. There is only one face of coal exposed along the old workings.

Q. There is some evidence that there was about 900 feet from the bottom of the old lift to the centre of the basin? A. I did not check it.

Q. Did your experience lead you to believe that it was possible to get into the north outcrop, that is to say that the McBean seam crops again there? A. I did not find any.

Q. They used to show me a place where they prospected the ground behind George McKay's, where the crop of the McBean seam would come up, a little to the west of that wing, that elbow of the company's works? A. The only place Greener is said to have found it was near Love's.

Q. Do the workings of the six-foot seam go to the basin in that district? A. Yes. There was a slight rise to the north, indicating a basin. The basin appears to have several undulations.

Q. Have you given any attention to the question whether it is feasible to get into the unworked coal in the McBean area; is it possible with money; supposing that the Vale colliery was opened and they were taking out 100,000 tons coal, would there be a market for it. Supposing all these places were opened and you could get 200,000 tons a year, is there any possibility of selling? A. Yes. I am not an authority for the general sales. I would not like to say one way or the other. I am not posted.

Q. A remark was made about the inferior quality of the coal on the west side—did the coal seem inferior? A. I had nothing to do with the upper part of the west district.

Q. Away down in the 3000? A. Down in the 3000 there was nothing wrong.

Q. One of the witnesses spoke yesterday of the rolling of the upper seam? A. The upper seam is irregular.

Q. Were there any faults in the upper seam of such a character that they would be expected to go into the basin in the eight-foot? A. Only the same faults that are found in the six-foot. The markets in those days were not the same as to-day. I have no idea of the quantity worked out in that seam. The crop of the seam in any other part is not known. I have not made any calculations lately as to the quantity remaining. At other times I have made wild guesses.

Q. With regard to the third seam—the workings of the third seam, the seam below the Cage pit—they were driven down, and in their western extension they fell up where some pillars were drawn, and those workings in the third seam were lost, and then you

continued your eastern slopes down some distance further, and you got some workings to the west? A. And we went east too.

Q. What system of working do you follow there now; is it the ordinary bord and pillar system? A. The place to the west was intended to be bord and pillar, but it is crushed; as in the other balances the pillars were at least 36 feet thick.

Q. Was there any extent of this ground that crushed? A. Just one balance.

Q. Then you are working now to the east in the same seam? A. There is a little doing.

Q. What system have you adopted there? A. There is no balance to the east in the third seam; there is only a place which you might call a return airway going. The cover between the seams is only 50 feet.

Q. Practically, as far as any connection with fire from the Cage pit to the third seam is concerned, apparently that danger is past now, except so far as the pillars here might fall through? A. Yes. Of course, we do not know of any fire being below the barrier in the Cage pit seam.

Q. Were you ever in the Cage pit workings after they were closed? A. I was in part of those workings before the fire, but was not through the stoppings of the big brake.

Q. Douglass told us you were away down here; when was that (pointing to the big brake on plan)? A. In 1887.

Q. Is there any proof that there is any fire in the workings at the present time? A. I think there is not much doubt of that. I think there is fire six chains from the crop.

Q. Do you think it is confined to a small piece of mine or has it spread? A. All inside of these stoppings there was a large area of fire. In the Cage pit shaft there are about 30 or 40 feet of earth. I think the Cage pit workings are on fire on this side of the big brake workings too. It is hard to say how it got out.

Q. The fire in the Cage pit is gradually working its way? A. I do not know whether it is moving. We have a man who goes around to plug up the holes and observe any settlement, etc. There is no active combustion of coal. I would describe it as a bottled in heat, ready to break into fire if there is a sufficient quantity of air. Sometimes the holes draw in and sometimes draw out at the plugs. The temperature is 75 degrees at the cupola, I think. In one instance a fire crept up through 180 feet of black shales and burnt a house. The occupant found fire damp in his cellar previously. It never was understood that when there was a flood on the intervalle there was an extra quantity of water in the Ford pit.

Q. Do you think the fire is all out in the Vale? A. I only have heard of one place where fire and water will live together.

The depth of the Ford pit shaft is about 900 feet; there are about 290 feet of water in it. The fire has been lurking in the workings of the main seam since 1867, to my knowledge.

THURSDAY, July 18th, 1895.

WILLIAM PURVIS—Called, sworn and examined by Mr. Gilpin:

Q. You were engaged in the Foord pit at the time they were trying to reopen it? A. Yes, sir, I was there. I think I was the first man down.

Q. You began after the water was got out of the shaft? A. Yes, sir, the water was pumped out level with the sheets.

Q. What did you do when you first got on to the sheets? A. Well, there was a head going through to the sump to the mines bord, to the lodgment; I think it was 75 feet, and I put timber up in that to get through into the mine. The levels were closed on both sides, and this head went off from the low side to the mine bord; we timbered that up; we went to the south side I think to the second head that was driven up; that was a little on the inside of the stone arch which was on the south side, then there was a fall and we could not get any further. Mr. Poole sent for Maxwell and Turnbull; he sent Turnbull through with me; then there was a head on the north side and we went down that; that was where the fire was most; the coke was about 5 feet there in the solid; it went in there for about 10 or 50 yards to what is called the stable bord, that is the mine bord of the old bottom, and then when it was sunk to the bottom of the big coal, and the levels were driven in to about 300 feet, then they kept down the hill and came through on the railway, and these heads were drove in level where it came through on the 9 ft. 3 in. I think the heaviest of the fire came along there. We came down to see which was the best way to open. Maxwell allowed that the north side would be the best. I told them that I did not think so. I thought from the step out which was weighted before she blasted. Of course the men had to go to work and put timber in, and on the south side where they re-opened her they were in a hurry to get coal. They put a pair of men wherever they could on the south side, and drove up the balances off the railway and the first balance in on the inside of the south side brake. Mooney and Holmes drove. It was all riddled out, and they thought that they would lose the level, and she came over. Hall and Greener took Turnbull and I out of the balance to build a wharf on the lowest side. We built it for 150 feet, one foot from the low side rail. They started us first to build pillars in on the balances, and we built them solid as the balance went up, and one morning when we came we found her over close on 100 feet. Whenever she came down it took the weight off the levels. Then we built the wharf along 150 feet along that level, and then when she fell on number one and number two bords on the balance that

took the weight off the level and mouth, and these balances were all built off. Mr. Rutherford sent me down first on the north side. We tried to get in there to get through this fall and timber it for 100 feet along the level, and she appeared to be broke right up. I went up to the blacksmith shop and got a rod fifteen feet long and had it welded on to a punch and ran it through, and I bored it up and could not get through where there was any vacancy, and then they stopped it. Then they built it off and started in the big coal; then they drove the north levels in 1000 feet.

Mr. Wills would be here then? A. Yes. Of course there was not a great deal done until Wills came.

Q. It was under Mr. Poole's management the water was taken out? Yes, sir. The north side of the stone arch we had to timber that; it had been red hot, and when the water came on it split the stone, and it was all but hanging there. We had to timber that to keep our heads safe as we went along.

Q. Did you not drive a place up on the south side before Wills came? A. Well, we drove the south side of the fan balance—it was drove in to the foot of the fan balance. Poole was going to stop it when it was in to the fan balance. He did not want to go any further while it was coming, so then he drove up 60 feet up the fan balance, and then we drove that back, and then Wills came, and then the Fan balance was drove up between three and four hundred feet and it was then stopped.

Q. What did you stop it for? A. I do not know what he stopped it for. We drove her up; I think it was about three or four hundred feet as far as we could run the coal down by the chain, and then the level was drove in before on the top coal, and then we drove in on the old level opposite this balance, and was going to drive on the balance again as it was driven before; this was in the big coal; the first was drove in 9 feet 3 inches and then we were driving the Fan balances in the Big coal under the 9 feet 3 inches balance. Twelve feet of coal was above us; all good coal. There are 42 feet of coal between what was called the 9 feet 3 inches and the big coal; 42 feet of good coal. From the top of the 9 feet 3 inches to the bottom of the big coal was 42 feet of good coal. The 9 feet 3 inches was the first coal that was worked, and that was worked down, and there was what we called the Umbrella roof two feet and one half inches below that, and the big coal came under that. To the rise there were 33 feet that is, including the 9 feet 3 inches and the big coal, and down on the Foord pit level on the west side is 42 feet of coal. There is no Umbrella roof there.

Q. You drove this place up on the south side, and this place on the north side (pointing to plan.) In doing this work did you break into the workings after you got away from the pit bottom?

A. In one place, on the level of No. 1 bord.

Q. After Wills came, were you still there? A. Yes, sir.

Q. What did they do then? A. Well, we drove those levels after Wills came and started a slant on the north side, 500 feet from the pit bottom and drove down 300 feet, and then the slant came level and turned around about due east, and then we turned around east, following this step. The step on the railroad was 30 feet thick, and there was 30 feet of a pillar left between the railway and the mine, and in the mine bord it was 60 feet, according to what Mr. Hall said. We drove the slant 800 feet on an angle and it turned level, and then it turned around east. There was a balance started on the angle, where it was turned around; we were still driving it when we stopped; we intended to start another one further in. The other slants were on the inside of this trouble; that was what was called the Muir slants; they drove those down on to the basin.

Q. Did you drive those slants in the bottom coal all the way down? A. Yes, sir; in the big coal, and left all the 9 ft. 3 in. above.

Q. How much did you take with you? Nine feet.

Q. Was it on the very bottom? A. We took nine feet of the big coal. The pavement of the 9 feet 3 inches was the roof. The coal is good all the way down excepting on the southside slants. There is nothing taken out there except what was taken out of the slant. We drove that place up 300 feet north on the dip side of the pit. We had to leave on account of the fire which drove us out.

Q. What pitch had she going up, was it steep or going up than going down? A. About the same—three to one.

Q. How much coal did you get going up there? A. Nine feet wide and 8 feet high.

Q. Was that good coal? A. All the best of coal. Wills intended to work that. He was going to take the top coal out first and break the bords and take the 9 feet 3 inches out first, and then draw the pillars off the 9 feet 3 inches, and then start the big coal bords again and drive in level until this step and draw the pillars out. We drove 1100 feet north of the Foord pit shaft. It drew air at the bottom the first time we were down—at the old bottom—they allowed that there was no fire or anything in her. I asked the reason why it drew through at the bottom having all the other places closed. I knew it was the fire that was out back that fell through from the Dalhousie to the Cage pit and from the Cage pit to the third seam.

Q. All this time that the water was down below the bottom of the Fan shaft, was that Fan shaft giving air to the old workings? A. No, sir; the Fan shaft was closed at this time; there was none of them open so it was said. It drew through all along. After the arches were built, of course, you could not get up to see anything. It was drawing through at the old bottom and then when it

could not get away it came back on to the shaft. I used to watch that.

Q. Why didn't you raise this arch up above the old pit bottom?

A. That was to be done, but it was not. If that was done it would have been all right.

Q. And you think that if the arch had been put up into the solid— A. There never would have been a fire. Wills drove 400 feet from the shaft bottom. He started this brake and drove it up 400 feet, and then drove a place through at the foot of the old By pit slant, where Mooney started the place in the big coal, to drive back into the fan shaft for a return airway. Wills drove 400 feet inside of the big brake. He was going to work what was called the 9 ft. 3 in. pillars to the rise, and he started and drove a little head into the foot of the old By pit north slant and Mooney drove a place off in the big coal. He intended to drive it to the fan shaft for air. I was up there, and Wills, Mr. Poole and Mr. Rutherford was, also. There was no fire in it at all. I went up to this pipe at the foot of the north slant of the old By pit. James Stewart drove the place. The pipe was in the hole and a little water was coming out of the hole. Stewart was with me. I went into Mooney's place and came down to the second head. There are only two places on the plan to be seen. I came down to the bord of the 9 ft. 3 in. This place, driven for a return, was in the 9 ft. 3 in., and I came down the second one along the level to the third one. I went up to the third one, to Mooney's place. He (Stewart) stayed at the low side corner until I came down. I went to the low side corner of Mooney's place. I think it is a thirty foot pillar through into this place that Mooney was driving. I could not get in any further for fire damp, and I turned back. I came down to the 4th head and could not get any further for damp. It was all coming from the south side. If there was any fire it was all making to the west. The air was hazy and there was no sign of fire there then. I came back on the level and there was a gate road drove from the bord below 45 feet. I went down the bord below and there was a little fall at the bord below, so I went on to the top of the fall, but could not get any further with my light. Then we came out to the little hole, where we came up there, and I said let us try and get on to the head of the big brake and we went west forty or fifty feet, but we could not get any further for damp. The roads and rails were all there and the roof was as sound as a bell there.

Q. How far was that from the pit bottom? A. 900 feet on the west side. It was 400 feet in on the level where this was started, that is the place where we started up hill. Then I came back south after going up hill to the fourth head.

Q. Was the temperature very high there? A. 82 degrees. The first fire that was discovered in the Ford pit, after the water was taken out, was at the fan shaft. Well, my opinion was that

they left the shaft standing open after they stopped that place. I was at Gedding's twice to take and cover it up. I thought the air might be working down. I used to go night and morning to the pipe after it was closed at the fan shaft. He said there was no need of closing it, and he did not pay any attention. I just made up my mind that if he did not close it up I was out of it. He told me it was no need—to leave it be—so I left it for a few days more and spoke to Wills, and he said it was no difference, it being open. I got a kind of worked up about the thing, and when I came out next morning I told him he could please himself; that if he did not close it up to-day it would be my last day; that I did not intend to go down, or anybody belonging to me, and that I intended to tell the men; that this is my last shift if this fan shaft was not closed up to-day. He never made an answer. Then he went and came up to see Wills. They came down and covered her up, so he told me. When he came down at dinner time it was covered.

Q. Was the fire discovered before that? A. No. The cause of that fire was her standing and heating behind the barring, and, of course, it fired. Wills wanted to build the fan shaft up with brick. Then this place they were driving up from the Foord pit bottom he stopped it because the fan shaft was not bricked.

Q. Then was the fan shaft covered over and left? Yes, and a pipe put in. They put a pipe down and ran water down for 24 hours. They put a two-inch pipe through a plank to try it with.

Q. Is it not possible for the fire to work from the fan shaft to the bottom? No, sir. The fire at the bottom came from the top of the arch.

Q. Was it not generally supposed that there was a good deal of heat on the south side? A. That place on the south side was all down and it was heating there. The air coming down was getting at it.

Q. What started the fire that finally drove you out? A. It originated there of itself, this last fire, by spontaneous combustion.

Q. How long was it dry? A. They had the water when I was down there on the sheets. I think I was down there three years altogether. Wills was here two years and I was there a year before. I think I was there a year before he came. Geddings was a man Wills brought out.

Q. Do you think that if the water was taken out that the fire would originate again? A. It is not hot under the water, but if the water was taken away and you left her standing for a while it would heat then all right.

Q. You think the place is liable to spontaneous combustion? A. If the air gets into the old workings.

Q. How can you prevent the air getting at it? A. Build the old workings off if you are working in the big coal. There is any quantity of coal to the dip that has never been worked. There are no openings on the level in the big coal. The new levels there now are in the big coal.

Q. You found this fire—the smoke was coming into the workings through the shaft? A. We used to watch there, at least I did. I was always dubious of the air going through there, and she pulled through there, then she backed on to the shaft, and I came up in the evening, and when I went down in the morning, and I was the first down, I noticed it going down and I rapped the cage up and I came up. I asked Mr. Wills what was to be done, and he told me to go ahead to-day, and he would see Mr. Poole and likely they would square up the place. They were going to drive ahead into it, so I saw him in the evening when I came up. She was then backing out on to the shaft. Brown was there. I told him about it. He told me to get things squared up and take the things out in the morning. The night shift man had noticed it. So I went down and took the things all out of her and they covered her over.

Q. She stayed covered for awhile and the water was allowed to rise? A. Yes. Then he wanted to get her open for Wills to see, and he opened her. I just got around the corner when the dust flew.

Q. Was the explosion violent? A. No. It was covered over with hay and sand. There was a hatch there. It just rose this up. It lifted the hatch, the hay and the sand.

Q. Did it take the cover off the Foord pit? A. It did not blow them up—just turned them over.

Q. Do you think the explosion was severe enough to damage the pit bottom? No. It never hurt the pit or the pump.

Q. Do you think the condition of the pit bottom is the same as when you left her? A. I do not know how the water would act on the brick. I do not think there would be anything wrong with the arch. The only place where she could break off would be No. 1 and No. 2 bords on the balance above. The coal was worked out to the rise on the south side. She cut off at No. 1 and No. 2 bord, and there would be no weight come on after. The level on the north side is 350 feet from the pit bottom up the hill. There is 60 feet of a pillar between the crosscut and the back head. I mean that the fire began on the level above the arch, and it spread and went through the head from the level into No. 1 bord. In No. 1 bord there is a crack. It is there where I bored a hole 20 feet west. The temperature was 72 degrees. I went to New Glasgow and got a thermometer and put it through myself. The water which came through from the upper seam workings at first was cool; in about six months it became heated as the fire extended. There is a slant on the south side from which no coal was taken out. The Foord

pit should never have been sunk, if the thing was rightly managed. There were pillars enough to the rise without sinking the Foord pit.

Q. Do you know anything of the fault between the Halliburton and the Foord pit? A. Except this step, which runs out by Tupper's and comes out by Haliburton. She pitches up on the inside. I drove it. I think we struck it a little this side of Tupper's; she turned right up; she pitched 86 degrees before we struck it; she goes out and comes around by the Haliburton.

THOMAS LENNON—I started to work in the brick yard in 1836 and I worked three summers in it. Then I went to carry picks in the blacksmith shop; then I went to work to tally on the pit head; then I went in the pit to drive; then I went in the bord to load, and then I started to cut coal and I have been cutting coal this last 45 or 46 years. Mr. Hudson came here in 1865. I went into the No. 3 pit first, and I was working there a small lad, 11 years old; then I went to the No. 2 pit and I worked in the No. 2 pit a year and a half, and then I went into the bord to load. The first pit started by the Albion Company was the old Store pits started in the year 1827. It was about 1828 when the pits were sunk. I remember an explosion in 1833 in the No. 3 pit, in which 36 horses were killed. In 1836 there was another explosion and three men were killed and three injured. Dan. Holl and Wm. Dick and Benj. Little killed, and John Lynch and John Blackwood and Bob Marshall were burnt. In the year 1839 the pit caught fire—the Store pits—and there were between 30 and 40 horses lost. There was an explosion before that in the pit. She was just sunk down. The men were descending this pit when the pit exploded. She was full to the mouth with gas. This was No. 2 pit, in the year 1838. There were no more explosions until 1858, when the Cage pit exploded, and there were two men killed then—a man and a boy—James Russell and George Redpath killed. Then, in 1864, there was a light explosion and 4 or 5 were burnt in the Cage pit. In 1861 the old By pit exploded and there were three lives lost—Wm. Roche, James Robertson and Daniel McKenzie. The Ford pit was just opening up and was fired in 1869 and she exploded, but no lives were lost but a few horses. In 1870 the Foster pit went on fire. The By pit and the Foster pit were both lost by that fire. In 1873 the Foster pit fell through to the Cage pit, and they detected the damp coming through and they built it off; and then, in the year 1880, the Ford pit exploded, and there are now 42 bodies lying in her yet. Three were taken out. There was one taken out alive, Dunbar, but he died from the effect of the explosion. Before that the water broke in on the 15th day of September, 1880, and the pit was wrecked; and it broke in on the other side on the 12th October and 6 lives were lost. They were all taken out. Then, in 1888, the No. 2 slope exploded on a Sunday, on the 15th day of January. They went to rob the pillars

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below the same place in the Cage pit, and, of course, she came in. In December she came in first. She made two breaks. Then, on the 15th day of January, she made a clear break; that is the last explosion. I have been in three explosions. I was in the Ford pit when she exploded. I was working on the northwest side; it was about 20 minutes or half-past six. I had started at six o'clock and about 20 minutes or half an hour afterwards I felt a concussion in the air. I was over a mile and a quarter from where the explosion occurred. At that time I thought it was down below me. Another man said to me, "Tom, what is that?" I said it was "gas in the mouth." Then there was another about 5 or 6 minutes following, which was heavier. So I thought it was time to move. Then I met one of the officials at the landing and I asked what was wrong and he could not tell me, and he said, "Boys, you had better go by the Cage pit," and then I started for the mouth. In 1866 I was cutting coal in the old By pit, when a boy kindled the flame. The boy was burnt to death and I was terribly injured.

QUERIES FOR ANSWERS BY MR. WILLS.

1. What is the quality of the top coal main seam as worked in the Foord pit?
2. What is the quality of the bottom coal in the same pit?
3. What is the quality of the bottom coal as compared with the top coal in the Foord pit?
4. It is merchantable coal?
5. Is it available for good coke making and good steam raising?
6. Did you suggest lining of shaft with brick and sand?
7. Why was it not done?
8. Why were the arches at bottom of pit not completed to be ready for lining?
9. What proportion of coal raised by you from the Ford pit was sold, and what proportion used at fire doors?
10. What objections were made to the scheme of lining proposed by you?
11. Was any other scheme suggested?
12. Why was lining suggested for this shaft?
13. Would its cost have been excessive as compared with the importance of the undertaking as compared with the money spent in connection with the scheme of re-opening?
14. Was it understood when you took charge that the bottom coal was good enough to work under the old workings in the Ford pit?
15. Was it understood that the scheme was to win the solid coal?
16. Was it agreed that your operations or plans were to be subjected to any final decision by the company or any of its officials.
17. Did the operations in the Foord pit after the water was pumped out before you took charge in any way affect the final results—if so, give particulars?
18. When did you take charge of the Ford pit?
19. Do you consider that it would be feasible to repair the Ford pit shafts?
20. Do you consider it feasible to re-open the pit with a view to working the bottom coal under the old Ford pit workings in the top coal?

21. Do you consider it feasible to re-open the Ford pit with a view to working the coal in the solid to the dip?

22. Do you consider it feasible to re-open the McBean slope? Would the coal in the McBean seam unworked warrant the re-opening of the seam by a new shaft or slope?

23. Do you consider that the six foot seam has been fully proved as to its thickness?

24. What proportion of the money spent in "reopening" the Foord pit was expended on surface work?

25. What proportion was spent in the work of re-opening property, not including boilers, heapstead, pumps, coke ovens, etc.

26. How long had the Foord pit been open when you took charge?

27. Was any air admitted to old workings before you took charge?

28. Were there so many apertures supplying air to the old workings beside the leaks in the main shaft Foord pit that the prevention of any leakage from the shaft to the old workings was a matter of comparatively little consequence?

29. At what other points did air gain access to the old workings?

30. Did any admission of air before you took charge influence the state of the old workings?

31. If so did you draw the attention of the company to the fact?

32. Did you do this before or after you proposed to the company to exclude air from entering the old workings from the shaft by means of a lining?

33. Did any air find access to the old workings by the fan shaft?

34. If so state facts?

35. Were you allowed full control of all operations connected with re-opening the Foord pit?

36. If not state in what particulars?

37. Were you supplied with all necessary material?

38. Were any of your requests for labor or material not complied with?

39. If so in what way and to what extent?

40. If you were interferred with in any particular—state the particulars, the names of the person or persons interfering, and their reasons for doing so?

41. What in your opinion was the cause of the fire which led to the final closing of the pit?

42. Could this have been prevented?

43. If any further remarks are necessary to complete the enquiries as indicated by the foregoing questions more than, or if any question has been omitted that if asked would be by its answer added to the information sought, kindly give the same here.

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IN THE MATTER OF A COMMISSION APPOINTED BY THE
GOVERNMENT OF THE PROVINCE OF NOVA SCOTIA
TO ENQUIRE INTO THE CAUSE, HISTORY, AND
EFFECTS OF THE FIRES IN THE COAL SEAMS IN
PICTOU COUNTY.

ANSWERS BY WALTER RIDOUT WILLS TO INTERROGATORIES ISSUED
FOR HIS EXAMINATION IN THE ABOVE MATTER.

No. 1.

With the exception that some of the roads driven from the bottom of the slope on the north side (where the coal was bright and good) were rising, I believe, out of the bottom coal, I have only seen some of the top coal in the old workings of the Foord pit, where of course it had been soiled by water. As regards the top coal generally at the Foord pit, however, I was invariably informed by all who had seen and worked it (and all other evidence I have seen also points in the same direction) that it was excellent (relatively to the local coals) and the best coal in the district for all purposes, coke making, steam raising and house coal. There seemed also to be a general desire amongst consumers in the district that the Foord pit coal should be again put on the market in quantity.

No. 2.

The quality of the bottom coal (in which the roads last driven at the Foord pit were almost entirely) was good on the north side. I understood that it gave satisfaction to those using it when properly screened, and that the mixture of it with other coals for coke-making improved the coke, and apart from this, I had always understood that it was an admitted fact that the coke made from Foord pit coal was superior to that made from other coals in the district. I burnt bottom coal in my house grates to test it, and what I burnt was I considered (relatively to the coals in the district which I had used, including Acadia) excellent.

No. 3.

The quality of the bottom coal was, as I always understood, not so good as the top, but the bottom coal I tried was very good, and would have made a larger proportion of round coal than the top, and would, therefore, for other purposes than coke making have raised the average price. A road which was being widened off into



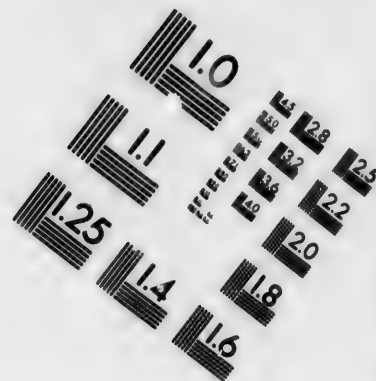
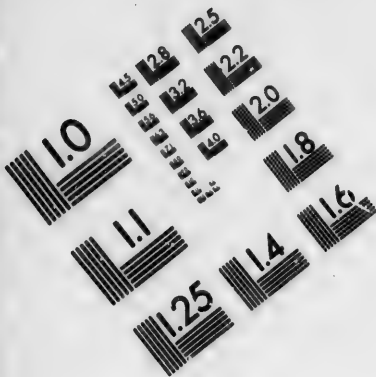
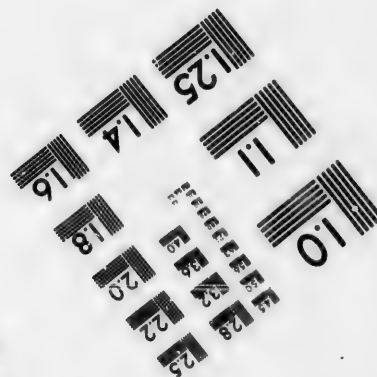
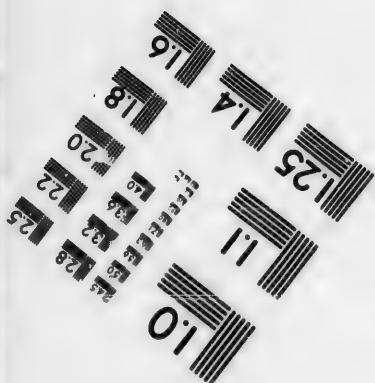
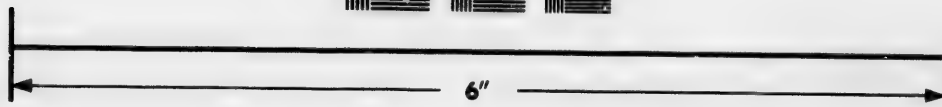
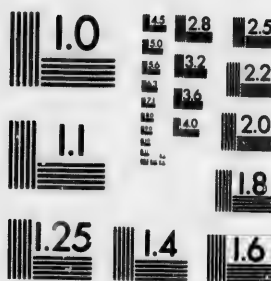


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a board at the top of No. 1 balance, north side, was making excellent coal at the time the pit was stopped.

No. 4.

The coal being raised at the Foord pit, at the time it was stopped, was undoubtedly superior to much that was then being sold and consequently was most distinctly merchantable.

No. 5.

The bottom coal is available for good coke making, steam raising and house coal.

No. 6.

I recommended the lining of the shaft in the strongest terms, (see copy of letter marked A.) Note, this lining is absolutely essential if the pit is ever to be used. When I was first out at the Foord pit, all the local information given me was to the effect that spontaneous combustion was unknown in the seam, and that the fires which had occurred from time to time had resulted from blown out shots or other causes in which extraneous heat had started the combustion. There can now, however, not be the least doubt that spontaneous combustion takes place either in the seam itself or more probably in the roof when fullen and lying in heaps. If the water was pumped down it would only be a matter of more or less time for fire to spring up again round the shaft bottom owing to the passage of air through the barring into the old workings. Nothing whatever can therefore be done with the Foord pit, either as a pumping station or a winding shaft until such lining is put in.

No. 7.

It was not done because the Company (through the President) put an absolute veto on it as unnecessary.

No. 8.

The arches at the pit bottom were finished right up in a line, with the barring all round the shaft bottom and a lining such as I suggested, could have been started at any time. You see that I asked permission (see letter A.) to push it forward with all "possible speed."

No. 9.

I give below an analysis of three months' output, which will give some idea of the proportion raised and used, and will also confirm my answer to question 4:

FIRES IN PICTOU MINES.

91

Total Boxes.	Total Tons.	Foord Pit Fires.	Shop Fires.	Blacksmith Fires.	Coke Ovens.	Shipped.	Banked.
<i>September, 1891.</i>							
3420	1964	486	108 5½	720	407½	237	
<i>October, 1891.</i>							
2566	1356	Lump. 585	Lump. 84		580		85
McGregor Coal,		72	45				
		657	129				
<i>November, 1891.</i>							
2574	1265	182	24	621	399	39	
McGregor Coal,		444	60				
Acadia Culm				144			
		626	84	765			

NOTE.—There is an error here of 22 tons in the clerk's figures.

NOTE.—The work at the Foord pit being only gate-riding made the output very small, and the steam appliances there were so wasteful as to take an amount of coal out of all proportion to the power used. So wasteful were the winding engines that a good local firm offered to compound the engines and take the coal saved over a specified period in payment. Not only were the engines wasteful, but, owing to the imperfect boiler appliances, a larger and more valuable class of coal was often used than should have been to maintain steam.

No. 10.

The only objection raised to the lining was that it was totally unnecessary.

No. 11.

No other practical suggestion was made.

No. 12.

When I was first out at Stellarton the information given to me was to the effect that spontaneous combustion was unknown and that water had been up to such a height as to completely extinguish the Ford pit fires, and that fire did not exist in the main seam except towards the crop where it had been smouldering for years. After I had been out in charge of the Ford pit some little time (Feb., '91), fire stink was smelt in the fan pit which had, I presume, been open for many months. I maintained at the time that this was spontaneous combustion, and, I have no doubt, was one of several points where spontaneous combustion originated. I at once urged (see letter marked A) the immediate securing of the Ford pit shafts, because, had a secure lining been put in from the arches and the bottom of the pumping pit secured, the colliery would have been safe, and, if desired, the workings could have been confined

entirely to the solid coal to the deep of the shafts. I had been in pits on fire round the shafts secured in this way and know that the protection I recommended would have been quite effectual.

No. 13.

The cost of the lining would not have been at all a heavy item as colliery expenses go, as compared with the importance of the undertaking or the outlay necessary for re-opening the pit.

No. 14.

When I took charge it was understood that the bottom coal would be good enough to work, and that there would be plenty of demand for it for coke making, manufacturing and household demand.

No. 15.

It was understood that the solid coal to the deep of the Foord pit was to be won.

NOTE.—I had also proposed to work bottom coal under the old workings, and there is undoubtedly a great quantity of this coal which can be worked.

It must always be remembered in considering this question that in the last re-opening of the Foord pit no precautions were taken at the outset to check the ingress of air. It poured in down the Fan pit, and for a long time through a number of openings in the Foord pit which I had bricked up, and then after these were bricked a large quantity must have passed continuously through the barring into the old workings up to the time of the closing of the pit.

No. 16.

I was under two agreements with the A. C. Co. In the first no mention was made of any other officials.

In the second it was stated that matters were to be referred to the agent, with a right of appeal to the Prest. This, however, in actual practice was a dead letter, as I was never able to obtain any decided expression of opinion from the former.

No. 17.

Undoubtedly bearing in view the liability to spontaneous combustion in the Foord pit (now ascertained beyond doubt) the proper course before pumping the water out even would have been to have

securely sealed all shafts to the rise such as the Fan pit, Store pit., etc., by putting rails across the shaft, taking out a piece of barring and filling in with several feet of sand some way from the surface; then the water should have been pumped down quickly and the working shafts secured.

Undoubtedly, therefore, the operations in the Foord pit after the taking out of the water seriously affected the after results, as air was pouring in at many points for months uninterruptedly.

No. 18.

Practically at the beginning of '91, when as soon as possible we began to build off the openings in to the old workings.

No. 19.

I consider that it would be perfectly feasible to secure the Foord pit shafts and to re-open the pit.

Nos. 20 and 21.

I consider it perfectly feasible to re-open the pit, with a view to working the solid coal to the deep of the shafts and much of the bottom coal to the rise.

No. 22.

I regard the McBean slope and the workings connected with it as hopelessly wrecked.

Whether it would pay to re-open the seam again by a new slope or shaft would depend on the area of the seam still unworked, and if this unworked area is likely to be of the same quality as the coal worked, questions on which the Government Geological Officials can give a better opinion than I could.

No. 23.

The six foot seam was thinning seriously at the time I left Nova Scotia, but whether this was temporary or such as to render the seam unworkable, I do not know, and I could not offer any opinion as to what extent the seam as a whole is proved to be.

No. 24.

The expenditure at the Foord pit would require a careful analysis from the books to arrive at it accurately, as it was mixed

up with a heavy water cost (which existed before and exists now) and other matters.

Of the money spent I should roughly estimate surface expenditure as half, but could not say definitely without going fully through the books.

No. 25.

I should not think more than one quarter.

No. 26.

I cannot say precisely, but I should suppose about twelve months from the time the inset bottom was reached.

No. 27.

A large quantity of air had been admitted to the Foord pit before I took charge. Six months after I took charge it was practically all cut off (a number of substantial stoppings having been put in for the purpose,) except the leakage through the barring which was serious in extent and position.

No. 28.

In the Foord pit itself there were no apertures of any consequence except the unprotected barring, and had the shafts been secured as proposed, if air leaking through other apertures nearer the surface had caused fire to spring up in the old workings, it could never have affected the working of the pit as a whole because a thoroughly encased and fire proof means of communication would have existed from the surface to the bottom coal roads, (or if the roads had been driven from the arches into the solid coal to the deep and protected with the solid coal.)

No. 29.

Some air no doubt leaked through the fissures near the surface down the Fan pit, Store pit and other pits nearer to the crop.

No. 30.

Admission of air before I took charge no doubt precipitated the springing up of fires from spontaneous combustion.

Nos. 31 and 32.

When I first went out to the Foord pit, as I have already stated (answer 12), all information obtained pointed to spontaneous com-

bustion being quite unknown and that the fires in existence in the main seam were smouldering ones at the crop (which would have taken years to creep down).

It was also stated that a barrier existed above the Foord pit workings driven through only in two places, and it was proposed to get to these points as quickly as possible, build them off and confine operations within this barrier; one of these openings was to be driven to and from the Fan pit.

When, however, what I considered as evidence of spontaneous combustion appeared, the whole situation became changed, and I then (Feb. '91) proposed measures which I considered absolutely necessary for the safety of the colliery, and which were, of course (in part), to prevent the passage of air from the Foord pit workings into the old workings.

Nos. 33 and 34.

Air had found its way down the Fan pit for months, and after closing it up, which was done shortly after, a slight amount of leakage would take place, as no mere surface covering can be as effectual as the measures I suggest (answer 17), owing to the existence of old surface drains, etc., etc.

Nos. 35, 36, 37, 38, 39 and 40.

Certainly not; after the experience of Feb., '91, at the Fan pit, I considered the securing of the Foord pit shaft absolutely essential to the safe and continuous working of the colliery and it is to-day. Yet this most necessary step was absolutely prohibited. I was besides greatly hampered in all ways at the Foord pit.

LABOR: Had I been in complete control I should, of course, have got good cutters, who would have pushed the work forward, and had there been the least desire at the local headquarters for work to be pushed such men would have been found.

We had a few very good men, but when others wished to come they were stopped, and as a whole work went forward in consequence at a very slow rate.

This is itself was a serious drawback.

Another equally serious hindrance was that it was often most difficult to get material or the execution of needed work from the shops; this arose through no fault of the heads of these departments, but all the collieries drew supplies from them, and if an order was put in for material for elsewhere we had to wait, and have waited for weeks for some simple thing such as a brake wheel.

Had it been desired to push the work forward these needed articles should have been bought outside rather than stop work.

At one juncture water was turned on the pit in large quantities from the back mines, flooding the inset to an extent, rendering work impossible.

This of course stopped work, upset men, and was, I am convinced, done intentionally to cause damage and hinder the progress of the work.

I suggested at various times working certain pieces of coal to increase the output and reduce costs, but this was stopped, and in fact a steady pressure was kept up to hinder operations, and cause the place to show up as a heavy drain.

This opposition proceeding as far as I could judge from the local agent.

No. 41.

The final closing of the pit was due to spontaneous combustion near the Foord pit bottom, which had been started and fanned up gradually by the passage of air through the barring.

No. 42.

This could only have been prevented by lining the shaft as proposed, and if the water is taken out again the recurrence of exactly the same state of things could only be prevented by the protection of the shafts as suggested.

I, WALTER RIDOUT WILLS, of 18 Wemyss Road, Blackheath, in the County of Kent, England, do solemnly and sincerely declare that the above are my answers to the Interrogatories numbered 1 to 42, inclusive, issued in the above matter for my examination, and that such answers are true to the best of my knowledge, information and belief, and I make this solemn Declaration, conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declarations Act, 1835.

W. R. WILLS.

Declared at No. 75 Queen Victoria Street,
in the City of London, this 8th day of
October, 1895, before me,
THOMAS H. WEEKS,
A Commissioner for Oaths.

FEBRUARY 20th, 1891.

J. W. CLENDENIN, Esq.,

President The Acadia Coal Co., Limited,

DEAR SIR:

I should have written had I not heard from you as to the Foord pit.

The measures here are I believe broken for a considerable distance up the shaft, and the barring here also has not been securely packed with any air-tight non-conducting material such as sand; to do this now would be slow and costly, and I question if it could be done effectually. Mr. Poole thinks the measures are so wet that caulking the joints of the barring would do. I am strongly of opinion, however, that the most thorough, safe and cheapest way in the end would be to put a brick lining (9 inch work) inside the present shaft to where the measures are sound and unbroken (say 250 feet up,) this being built from and continuous with the archway at the bottom of the shaft which will again connect with the bottom coal roads.

If the bottom of the pumping shaft is also secured through the coal seam by driving behind the barring and filling in with sand and brickwork, I should consider the colliery would be safe; but I do not consider that it will be secure till this is done, and I think that this and the arching should be completed with all possible speed.

To brick the shaft will not entail more than a few days' stoppage, and will merely alter our arrangements to the extent of wiring with cages like A. instead of B.

PROPOSED CASING TO FOORD PIT SHAFT.

First a single box two-decked cage would have to be made and substituted for one of the present cages, a balance being put on the other side (see shaded line 1), a scaffold arranged so as to be raised from time to time could then be put in and a brick casing backed with sand built (see lines), the coal could be hoisted on one shift and bricking could go on the other two shifts. In this way the shaft would soon be secured for the necessary height and could never be affected by fire.

The cages would ultimately run on wire conductors.

Upon hearing from you that you approve of the suggestion, I will at once proceed with this work with all possible speed.

I enclose rough sketch showing suggested casing, and remain,

Yours obediently,

(Sg'd.) W. R. WILLS,

Assist. Manager.

**STATEMENT PRESENTED BY H. S. POOLE, ALREADY
EXAMINED AS A WITNESS, ON THE REPLIES
OF W. R. WILLS TO CERTAIN QUESTIONS
AS TO THE FOORD PIT FIRES.**

Before commenting on Mr. Wills' replies to the enquiries of the Commission, it will be well to state his position :

When the Foord pit was pumped out and the condition of the workings surmised, the agent, recognizing the grave nature of the problem before the company, reminded the directors (Jany. 8th, 1890) of the offer made some time before to obtain the advice of an expert. It was expected W. Sawyer, of Staffordshire, could be obtained, but he was just booked for South Africa. Failing him, for some reason, as yet unexplained, Mr. Wills, although unknown to Sir G. Elliot and the other English directors, was sent seemingly as an expert.

He examined the property and spoke so confidently of what he could do it put in charge that a two years' engagement was made with him, he to report direct to the Board of Directors independently of the agent. Subsequently he put in his report as an expert. It was written partly in pencil, partly in ink, with interlineations and in two handwritings.

It is submitted that the commission will see on examining Mr. Wills' statement that the answers to the questions are not direct and that irrelevant matter is introduced. No one wishes to suggest an evident motive for Mr. Wills' hostility to the agent, but the commission ought to know that Mr. Wills was given permission to resign before his engagement expired, and that he consulted counsel as to his remedy if discharged. He did put in his resignation after consultation.

Material. Mr. Wills may not remember he ordered gear of Wier and Morrison—gear wheels for the Vale winding engine, patch plates, foundation plates for the Vale engine never yet used.

The Stanley headers with all its fittings, air compressor, &c., a complete failure, being unable to cut the numerous ball stones in the coal. He was reminded it could be returned to England and \$1,100 saved. He said he wished to make another trial. It failed. The agent suggested it be taken up out of the pit, but he did not care to do this. It is still below.

The Fan pit was sunk to the Big coal after advice was had with Mr. Wills—see p. 761.

Aug. 15th, 1890—"I hesitate to endorse the suggestion that all Albion operations centre in the Foord pit. The nature of the ground, the inflammability of the shales, the open texture of the coal, the volume of gas evolved from virgin coal, all suggest that concentration should not be lightly undertaken. It certainly must not be forgotten that the crop of the seam has been on fire for 20 years, and whatever reasons there may be for hoping the fire is circumscribed by falls, there is no certainty of this, the crushes have been but partial and the settling irregular."

"Respecting driving towards the surface (as suggested by Mr. Wills to Sir G. Elliot) this work is now going on for a connection with the Fan pit. The Fan pit has been put in order and sunk to the bottom of the seam, but the work of driving down this to meet the balance driving up has not been begun, the necessary gear is not ready, and I should like to be sure before breaking the walls, to be quite sure, that Mr. Wills has thought out his suggested openings starting from the pit bottom directly to the deep, and directly on a half dip course to the rise. For several reasons it seems to me better to open out on a level course east and west for a short distance before taking the required courses."

The blunders made by Mr. Wills in suggesting the openings be made from a shaft bottom as proposed, will be apparent when it is remembered the seam dips at an angle of eighteen degrees. Mr. Wills when he came out first as an expert made a plan of the proposed openings from the Fan pit. On his return from England he got hold of it and destroyed it.

COMMENTS ON ANSWERS BY MR. W. R. WILLS TO
QUESTIONS BY THE COMMISSION APPOINTED
BY THE GOVERNMENT.

No. 1 and 2. The coke from the 9 foot 3 inch coal was superior, but the returns from Londonderry showed the coke made from the bottom coal (under Mr. Wills) was not so good. Coal ash 11 per cent.

No. 6. The lining of the lowest part of the Foord pit was acknowledged by all as advisable. It had been done before Mr. Wills took charge, but this packing he took out when he rebuilt the arches and he did not restore it. Objection was taken to reducing the size, as he suggested, to 7 feet round, for obvious reasons if the pit was to be used as a hoisting pit. There were other ways of closing the shaft in over the arches, without reducing the size, as by walls of timber or concrete with clay backing.

When spoken to on one occasion about the non-completion of the work over the arches at the mouthing, Mr. Wills stated that as it would stop the getting of coal for the time he would not do it then. He was most anxious to make a show of output as he had offered, if given charge of the work, to have the pit in condition for an output of 1000 tons a day in two years' time. The getting of coal therefore became to him of more importance than the condition of the mine for a permanency. Mr. J. H. Harden, the well-known practical engineer, of Phoenixville, Pa., was consulted, and did not agree that a 7 foot shaft was advisable.

Besides the safety of the pit did not turn on the closing in of the shaft over the arches. There were other places where the air leaked, e. g., at the chocking on the level where the slant to the Dip turned away; at the entrance to the stable, several times spoken of to Mr. Wills; at cracks in the coal parting between the new and old openings not in all cases to be got at; at imperfect stoppings in openings made by Mr. Wills; at the head of the Fan balance where water came through; at the head of No. 1 balance north where for some time a hole purposely made by Mr. Wills was only closed by lay. He acknowledges there were other leaks of air besides at the arches, though he calls them immaterial.

No. 7. The veto of the President referred to the reduction of the shaft to only 7 feet diameter, not to the closing in above the mouthing and putting this spot in as good condition as it was before he pulled down the stone arches.

No. 9. Mr. Wills says the steam appliances are "so wasteful." It was due to him that the boilers from the Vale were brought into

use contrary to the opinion of the agent. As to the offer of a local firm to alter the Foord pit engines, it was contingent on a statement of Mr. Wills which could not be guaranteed, hence it fell through. As to the engines they are by Joyce, a firm of excellent repute, but they are not modern.

Nos. 10 and 11. These replies are not true.

No. 13. Many experienced men are of opinion his proposed lining would not have saved the pit on account of the leaks already referred to. His opinion can only be taken for what it is worth. Mr. James Maxwell is cited as an illustration of experienced men differing from him.

No. 16. Mr. Wills says he had no decided expressions of opinion from the agent. He doubtless has forgotten the contrary opinions expressed when he suggested :

Opening the Gordon pit to make a draft to the rise through workings assumed to be on fire; to change the railway track and put it between the Fan pit and the mill; to abandon development at the Back mines, pull down the ovens there, &c.; to work bords immediately below the Foord pit bottom; to start an incline from the centre of the Fan pit up under the crushed mine; to the employment of notoriously drunken pit managers, one of whom was without a certificate; the doing away altogether with a locomotive at the Albion mines, &c., and the frequent uncovering of the Foord pit. The wilful leaving open for hours of this pit in the absence of the agent caused the explosion that terminated his engagements.

No. 15. In answer to this and similar questions, Mr. Wills desires it to be thought he was always anxious to stop air leaks and the agent opposed him. On turning to the correspondence the boot will be found on the other foot.

February 13th, 1891 (p. 838), the agent wrote: "I would say the better course now is to take a pessimistic view and again consider what course is best to pursue under the present circumstances. I incline to abandoning the proposed use of the Fan pit, and to believe, slow as it will be, that the safer course will be to adopt the English slope for ventilation."

This was opposed by Mr. Wills. (See his letters.)

Further, Mr. Wills has evidently forgotten his letter of June 27th, 1891, suggesting the use of the air leakage into the old works (assumed by him at 1,500 cubic feet per minute) for the purpose of working the old 9 ft. 3 in. pillars. To this the agent wrote :

"Surely the safer course is to assume that the further admission of air is objectionable, as it may cause the fire to travel still farther westward." Again, p. 889: "This leakage I would prefer not to revive more than necessary for the reason that led me to suggest it be cut off, although Mr. Wills concludes that because this leakage

went on for 18 months it is perfectly safe to allow it to continue, while the pillars in question are removed. I say if fire travelled during the assumed 18 months a certain distance, what is to prevent it travelling a further distance on the re-admission of air?"

These extracts should be sufficient to show how utterly unreliable are Mr. Wills' statements.

No. 40. Mr. Wills may yet remember his coming out as an expert (April 15th, 1890) and spending three months at the mines to advise as to the Foord pit, the agent recognizing the very serious nature of the questions at issue (p. 699.) His report does not mention some of the points he dwells now on. He then knew that the Foord pit bottom could not have been cleaned up without the admission of air.

No. 17. He knew that the Store pit, &c., were as effectually sealed as the character of the ground allowed, and that air did not "pour" in at the Fan pit, as the bottom was crushed and closed. This Fan pit was put in his hands September 16th, 1890, but he left it alone till December, when he worked in the bottom coal. Although he now says the leakage of air should have been stopped months ago.

Mr. Wills gave directions when out as an expert in May that he did not think the admission of air a serious matter.

No. 18. Mr. Wills says he assumed charge at the beginning of 1891. He was asked to make suggestions before returning in June to England as to what should be done in his absence. On his return he went down the Foord pit Sept. 16th, 1890, and assumed charge, though he did not go again until Oct. 6th. His salary began then, and he also put in a charge for horse keep at that time although he used a horse from the agent's stable.

No. 12. It is certain the agent never told him "fire did not exist towards the crop," for a restink was evident to the meanest nose.

No. 35-40—Continued. He further says: "At one junction water was turned on in large quantities from the Back mines. I am, he says, convinced intentionally to cause damage." This is a scoundrelly charge which he could not substantiate. The Foord pit is subject to an extra flow of water at certain seasons that cannot be prevented. Much of the crushed surface cannot be drained. It may be well to note that although presumably holding such an opinion of the agent he ventured his reputation by making a further engagement to associate further with such a man. The fact, however, was plain, he had assumed more knowledge than he possessed, and his experience had been too limited for him to realize the nature of the job he undertook so lightly, so to cover up his failure he had to find fault with some one else. He further says "he was hindered, &c." He forgets to say he was not hindered at the Vale in the erection of a coal cutter there as he recommended when he came out

"as an expert," which after two years he got to cut 5 inches, and then finding it a failure he speeded up the gear and with his own hand threw in the clutch which caused the gear to fly to pieces among the workmen!!; or that he was not interfered with when he got up a "patent" pit box which, however, he forgot to make to suit the pit track gauge!!; or that he was not "hindered" from making two zinc lined receptacles on wheels to run in the Foord pit and receive daily the foecal contributions of the pitmen. This "material" is to be seen on the coal floor to-day; or that he was interfered with in his management at the Vale under his imported pitman; and yet when this man was dismissed the disgraceful condition in which she then was is in evidence in the report of J.W.S., that man's successor.

The agent had no authority to interfere with Mr. Poole.* His instructions were conveyed in a letter from the President August 14th, 1891. "In carrying out the foregoing I would ask you to consult with Mr. Poole as to details, and should any material difference of opinion arise between you to refer the matter to me."

Yes, at various times, Mr. Wills did "suggest working certain pieces of coal to increase the output, &c.," but was stopped, and yet in No. 16 he contradicts himself and says, "he could get no decided expression of opinion" from the agent.

And he suggested to work where no one who had a thought for the permanent working of the pit would have dared to do so. He wanted to drive a set of bords close below the mine bord back towards the Foord pit, which if done would have let down all the water to be again pumped at extra cost and permanent outlay of plant. Then he suggested (see his first report) working the rise east side of the English slope where the coal is very inferior and no appliances existed for its extraction, &c.

Then he proposed a slant direct from the centre of the Fan pit rising nine degrees up under old workings full of dump if not of fire.

Then robbing the shaft pillar temporarily to get out coal which the trade did not call for. What was wanted of him was to get the Foord pit in order for a future trade, as he undertook to do; he was not wanted to produce coal at any cost and increased risk.

Mr. Wills denies selecting his own men. He may remember he brought out with him, as head pitmen on high salaries, two men who were not steady; one had no certificate, although he knew his Nova Scotia laws required underground managers to have certificates; and one was notoriously dissipated, and, as an illustration that he did select his own pitmen, the case of Billy T—— may be mentioned. The agent, knowing the man, advised against his employment; nevertheless he, Wm. T—— was taken on. It is childish for him now to say proper men should have been found for him when he could and did select for himself.

*Wills?

He also speaks of difficulty in getting material. The head engineer was his own selection and gave every preference to the work for the Foord pit, even to the sacrifice of the Back pits, from which the market had necessarily to be supplied. Local enquiry would easily prove this. Besides, no opposition was put in the way of getting more fitters, &c., had such men been wanted for the Foord pit. Mr. Wills was sometimes unreasonable in his expectations; he lectured the agent on one occasion before the storekeeper (McK.) for not having material out from England, even before an acknowledgment of the order had come by mail. That he ordered much of the material required is in evidence on Colliery books; the orders are in his own handwriting. He also ordered material for which no order appeared in the office books.

Mr. Wills imputes to the agent base motives. This comes well from a man with such a record. It is strange, believing such possible, he should, in his second engagement, agree to consult and report through him. While, in the first flush of his self-conceit, he claimed that "there were not four men in all England fit to manage the Foord pit," he afterwards acknowledged that the difficulties to be met were greater than he had at first any idea of.

And, having committed himself to rash promises, he tried to put on others the blame of his inability to do impossible things.

It is all very well, in the light of subsequent experience, to speak of mistakes, but it is the lot of very few who attempt risky undertakings to avoid making some, and neither Mr. Wills or the agent's previous records are without them.

Statement presented by H. S. Poole, December 30, 1895.

E. GILPIN, JR.